



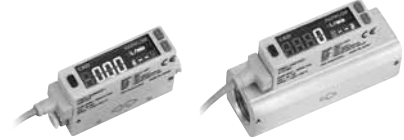
Small flow rate sensor RAPIFLOW
display integrated/display separated

FSM2 Series

- Resin body (flow rate range: 500 ml/min. to 200 l/min.)
- Aluminum body (flow rate range: 500 l/min., 1000 l/min.)
- Stainless steel body (flow rate range: 500 ml/min. to 200 l/min.)



Display integrated (resin/aluminum body) specifications



Descriptions		Display integrated (resin/aluminum body) specifications FSM2-[*1][*2][*3][*4][*5][*6]-[*7]														
		Full scale flow rate	005	010	020	050	100	200	500	101	201	501	102			
Flow rate range *1	*4	005	500 ml/min	●												
		010	1 l/min		●											
		020	2 l/min			●										
		050	5 l/min				●									
		100	10 l/min					●								
		200	20 l/min						●							
		500	50 l/min							●						
		101	100 l/min								●					
		201	200 l/min									●				
		501	500 l/min										●			
102	1000 l/min											●				
Port size/ body material	*5	H04	φ4 Push-in / resin	●	●	●	●	●	●							
		H06	φ6 Push-in / resin	●	●	●	●	●	●							
		H08	φ8 Push-in / resin							●	●	●				
		H10	φ10 Push-in / resin								●	●				
A15	Rc1/2 / aluminum										●	●				
Needle valve integrated	*1	*6	N	●	●	●	●	●	●	●	●	●	●			
Flow rate display *2, *3	Display	Display range	*3	F	4 digit + 4 digit 2 color LCD											
				R	0 to 500 ml/min	0 to 1000 ml/min	0 to 2.00 l/min	0 to 5.00 l/min	0 to 10.00 l/min	0 to 20.0 l/min	0 to 50.0 l/min	0 to 100.0 l/min	0 to 200 l/min	0 to 500 l/min	0 to 1000 l/min	
					-500 to 500 ml/min	-1000 to 1000 ml/min	-2.00 to 2.00 l/min	-5.00 to 5.00 l/min	-10.00 to 10.00 l/min	-20.0 to 20.0 l/min	-50.0 to 50.0 l/min	-100.0 to 100.0 l/min	-200 to 200 l/min	-500 to 500 l/min	-1000 to 1000 l/min	
		Display resolution			1 ml/min			0.01 l/min			0.1 l/min			1 l/min		
Integrating functions *4	Display range			9999999 ml			99999.99 l			999999.9 l			9999999 l			
	Display resolution			1 ml			0.01 l			0.1 l			1 l			
Integrated pulse output rate			5 ml	10 ml	0.02 l	0.05 l	0.1 l	0.2 l	0.5 l	1 l	2 l	5 l	10 l			
Working conditions	Applicable fluid		*5	Clean air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1:1 to 5:6:2]), compressed air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1:1 to 1:6:2]), nitrogen gas												
	Max. working pressure			0.7 MPa (≈100 psi, 7 bar)												
	Min. working pressure			-0.09 MPa (≈-13 psi, -0.9 bar)												
	Proof pressure			1 MPa (≈150 psi, 10 bar)												
	Operating ambient temperature/humidity			0 (32°F) to 50°C (122°F), 90% RH or less												
Accuracy	Fluid temperature			0 (32°F) to 50°C (122°F) (no condensation)												
	Working range			Uni-direction: 3 to 100% F.S., bi-direction: -100 to -3% F.S., 3 to 100% F.S.												
	Linearity (display/analog output)			Within ±3% F.S. (Secondary side released to atmosphere)												
	Pressure characteristics			Within ±5% F.S. (-0.09 to 0.7 MPa, where secondary side is released to atmosphere)												
	Temperature characteristics			Within ±0.2% F.S./°C (15 to 35°C, 25°C reference)												
Repeatability			Within ±1% F.S.													
Response time		*7	50 ms or less													
Output	Switch output	*1	N	Output 2 points (NPN open collector output, 50 mA or less, voltage drop 2.4 V or less)												
		P	Output 2 points (PNP open collector output, 50 mA or less, voltage drop 2.4 V or less)													
	Analog output	*2	V	1 to 5 V voltage output 1 point (connecting load impedance 50 kΩ and over) *8												
			A	4 to 20 mA current output 1 point (connecting load impedance 0 to 300 Ω)												
Power supply voltage		*9	*2	V	12 to 24 VDC(10.8 to 26.4 V)											
			A	24 VDC (21.6 to 26.4 V)												
Current consumption		*10	50 mA or less													
Cable			φ3.7, AWG26 or equivalent x 5-conductor (connector connection), insulator outer diameter φ1.0													
Functions			Flow rate display, flow rate display peak hold, switch output, analog output, etc.													
Mounting	Mounting orientation			Unrestricted in vertical/horizontal direction												
	Straight piping section			Not required												
Degree of protection			IEC standards IP40 or equivalent													
Protection circuit		*11	Power reverse connection protection, switch output reverse connection protection, switch output load short-circuit protection													
EMC Directive			EN55011, EN61000-6-2, EN61000-4-2/3/4/6/8													
Weight (main body only)	*5	H04	Approx. 50 g (approx. 80 g with needle valve)													
		H06	Approx. 50 g (approx. 80 g with needle valve)													
		H08	Approx. 70 g (approx. 110 g with needle valve)													
		H10	Approx. 75 g (approx. 115 g with needle valve)													
		A15	Approx. 155 g													
Clean-room specifications		*7	P70	Anti-dust generation *12												
			P80	Oil free *13												



Display integrated (stainless steel body) specifications

1 MPa = 10 bar

Descriptions		Display integrated (stainless steel body) FSM2-[*1][*2][*3][*4][*5][*6][*7][*8]										
		Full scale flow rate	005	010	020	050	100	200	500	101	201	
Flow rate range *1	*4	005	500 ml/min	●								
		010	1 l/min		●							
		020	2 l/min			●						
		050	5 l/min				●					
		100	10 l/min					●				
		200	20 l/min						●			
		500	50 l/min							●		
		101	100 l/min								●	
Port size/ body material	*5	S06	Rc1/8 Stainless steel	●	●	●	●	●	●	(Not for CO ₂)		
		S08	Rc1/4 Stainless steel							●	●	
		SM5	M5 Stainless steel (Custom order product)	●	●	●	●	●	●	(Not for CO ₂)		●
Needle valve integrated	*1	*7	N	●	●	●	●	●	●	●	●	
Flow rate display *2, *3	Display		4 digit + 4 digit 2 color LCD									
	Display range	*3	F	0 to 500 ml/min	0 to 1000 ml/min	0 to 2.00 l/min	0 to 5.00 l/min	0 to 10.00 l/min	0 to 20.0 l/min	0 to 50.0 l/min	0 to 100.0 l/min	0 to 200 l/min
			R	-500 to 500 ml/min	-1000 to 1000 ml/min	-2.00 to 2.00 l/min	-5.00 to 5.00 l/min	-10.00 to 10.00 l/min	-20.0 to 20.0 l/min	-50.0 to 50.0 l/min	-100.0 to 100.0 l/min	-200 to 200 l/min
	Display resolution		1 ml/min			0.01 l/min			0.1 l/min			1 l/min
Integrating functions *4	Display range		9999999 ml			99999.99 l			999999.9 l			9999999 l
	Display resolution		1 ml			0.01 l			0.1 l			1 l
	Integrated pulse output rate		5 ml		10 ml	0.02 l	0.05 l	0.1 l	0.2 l	0.5 l	1 l	2 l
	Applicable fluid		*6	Blank	Clean air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1 to 5:6:2]), compressed air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1 to 1:6:2]), nitrogen gas							
Max. working pressure		AR		Argon								
Min. working pressure		C2		Carbon dioxide (CO ₂)								
Working conditions	Proof pressure		1.5 MPa (≈220 psi, 15 bar)									
	Operating ambient temperature/humidity		0 (32°F) to 50°C (122°F), 90% RH or less									
Accuracy	Fluid temperature		0 (32°F) to 50°C (122°F) (no condensation)									
	Working range		Uni-direction: 3 to 100% F.S., bi-direction: -100 to -3% F.S., 3 to 100% F.S.									
	Linearity (display/analog output)		Within ±3% F.S. (Secondary side released to atmosphere)									
	Pressure characteristics		Within ±5% F.S. (-0.09 (≈-13 psi) to 0.7 MPa (≈100 psi), where secondary side is released to atmosphere)									
	Temperature characteristics		Within ±0.2% F.S./°C (15 (59°F) to 35°C (95°F), 25°C (77°F) reference)									
	Repeatability		Within ±1% F.S.									
Response time		*7		50 ms or less								
Output	Switch output	*1	N	Output 2 points (NPN open collector output, 50 mA or less, voltage drop 2.4 V or less)								
			P	Output 2 points (PNP open collector output, 50 mA or less, voltage drop 2.4 V or less)								
Analog output	*2	V	1 to 5 V voltage output 1 point (connecting load impedance 50 kΩ and over) *8									
		A	4 to 20 mA current output 1 point (connecting load impedance 0 to 300 Ω)									
Power supply voltage		*9	V	12 to 24 VDC (10.8 to 26.4 V)								
			A	24 VDC (21.6 to 26.4 V)								
Current consumption		*10		50 mA or less								
Lead wire		φ3.7, AWG26 or equivalent x 5-conductor (connector connection), insulator outer diameter φ1.0										
Functions		Flow rate display, flow rate display peak hold, switch output, analog output, etc.										
Mounting	Mounting orientation		Unrestricted in vertical/horizontal direction									
	Straight piping section		Not required									
Degree of protection		IEC standards IP40 or equivalent										
Protection circuit		*11		Power reverse connection protection, switch output reverse connection protection, switch output load short-circuit protection								
EMC Directive		EN55011, EN61000-6-2, EN61000-4-2/3/4/6/8										
Weight (main body only)	*5	S06	Approx. 95 g (approx. 160 g with needle valve)									
		S08	Approx. 115 g (approx. 200 g with needle valve)									
		SM5	Approx. 140 g									
Clean-room specifications	*8	P70	Anti-dust generation *12									
		P80	Oil free *13									

*1: This valve cannot be used as a stop valve that requires no leakage. Slight leakage is allowed for in the specifications.
 *2: The value converted to volumetric flow rate at standard condition (20°C 1 barometric pressure (101 kPa) relative humidity 65%)
 *3: The flow rate display is rounded off at approx. ±1% F.S. or less (forced zero).
 *4: The integrating flow is a calculated (reference) value. It is reset when the power is turned OFF.
 *5: Use dry gas which does not contain corrosive elements such as chlorine, sulfur or acids, and which is clean and does not contain dust or oil mist. When using compressed air, use clean air compliant with JIS B8392-1: 2012 Grade (1:1 to 1:6:2). Compressed air from the compressor contains drainage (water, oil oxides, foreign matter, etc.). To maintain the function of this product, install a filter, air dryer (min. pressure dew point 10°C or less), and oil mist filter (max. oil content 0.1 mg/m³) on the primary side (upstream side) of this product. [Recommended circuit]

[Recommended device]
 Air filter: F series
 Oil mist filter: M series

*6: Calibration of this product is performed within specified range. Accuracy conditions: Temperature 25±3 °C, power supply voltage 24±0.01 VDC. F.S. stands for full scale flow rate.
 *7: Response time can be set in seven steps from 50 ms. or less to approx. 1.5 s.
 *8: The output impedance of the analog output section is approx. 1 kΩ. If the impedance of the connecting load is small, output and error increase. Check error with the impedance of the connecting load before using.
 *9: The power supply voltage specifications differ for the voltage output and current output.
 *10: Current for when 24 VDC is connected, and no load is applied. The current consumption will vary depending on how the load is connected.
 *11: This product's protection circuit is effective only for specific misconnections and load short-circuits. It does not provide protection for all misconnections.
 *12: [P70] Anti-dust generation (product surface is degreased and cleaned before packing. Heat sealed into antistatic bag in clean bench (Class 1000 and over).)
 *13: [P80] Oil free (In addition to P70 specifications, gas-contact sections are degreased and cleaned. Refer to the "Internal structure and parts list" for details on the gas-contact materials.)

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneUR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Display separated (resin/aluminum body) specifications



1 MPa = 10 bar

Descriptions		Display separated (resin/aluminum body) FSM2-A[*1][*2][*3]-[*4]-[*5]												
		Full scale flow rate	005	010	020	050	100	200	500	101	201	501	102	
Flow rate range *1	*3	005	500 ml/min	●										
		010	1 l/min		●									
		020	2 l/min			●								
		050	5 l/min				●							
		100	10 l/min					●						
		200	20 l/min						●					
		500	50 l/min							●				
		101	100 l/min								●			
		201	200 l/min									●		
		501	500 l/min										●	
102	1000 l/min											●		
Port size/ body material	*4	H04	φ4 Push-in / resin	●	●	●	●	●	●					
		H06	φ6 Push-in / resin	●	●	●	●	●	●					
		H08	φ8 Push-in / resin							●	●	●		
		H10	φ10 Push-in / resin								●	●		
		A15	Rc1/2 / aluminum										●	●
Flow direction		*2	F	Uni-direction										
			R	Bi-direction										
Working conditions	Applicable fluid		*2 Clean air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1:1 to 5:6:2]), compressed air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1:1 to 1:6:2]), nitrogen gas											
	Max. working pressure		0.7 MPa (≈100 psi, 7 bar)											
	Min. working pressure		-0.09 MPa (≈-13 psi, -0.9 bar)											
	Proof pressure		1 MPa (≈150 psi, 10 bar)											
	Operating ambient temperature/humidity		0 (32°F) to 50°C (122°F), 90% RH or less											
	Fluid temperature		0 (32°F) to 50°C (122°F) (no condensation)											
Accuracy	Working range		Uni-direction: 3 to 100% F.S., bi-direction: -100 to -3% F.S., 3 to 100% F.S.											
	Linearity (analog output)		Within ±3% F.S. (Secondary side released to atmosphere)											
	Pressure characteristics		Within ±5% F.S. (-0.09 (≈-13 psi) to 0.7 MPa (≈100 psi), where secondary side is released to atmosphere)											
	Temperature characteristics		Within ±0.2% F.S./°C (15 (59°F) to 35°C (95°F), 25°C (77°F) reference)											
*3	Repeatability		Within ±1% F.S.											
Response time		50 ms or less												
Display		Flow bar display												
Output	Analog output	*1	V	1 to 5 V voltage output 1 point (connecting load impedance 50 kΩ and over) *4										
			A	4 to 20 mA current output 1 point (connecting load impedance 0 to 300 Ω)										
Power supply voltage	*5	*1	V	12 to 24 VDC (10.8 to 26.4 V)										
			A	24 VDC (21.6 to 26.4 V)										
Current consumption		*6		50 mA or less										
Lead wire		φ3.7, AWG26 or equivalent x 4-conductor (connector connection), insulator outer diameter φ1.0												
Functions		Analog output, flow bar display, error display												
Mounting	Mounting orientation		Unrestricted in vertical/horizontal direction											
	Straight piping section		Not required											
Degree of protection		IEC standards IP40 or equivalent												
Protection circuit		*7		Power reverse connection protection										
EMC Directive		EN55011, EN61000-6-2, EN61000-4-2/3/4/6/8												
Weight (main body only)	*4	H04	Approx. 40 g											
		H06	Approx. 40 g											
		H08	Approx. 60 g											
		H10	Approx. 65 g											
		A15	Approx. 145 g											
Clean-room specifications	*5	P70	Anti-dust generation *8											
		P80	Oil free *9											



Display separated (stainless steel body) specifications

1 MPa = 10 bar

Descriptions		Display separated (stainless steel body) FSM2-A[*1][*2][*3]-[*4][*5]-[*6]										
		Full scale flow rate	005	010	020	050	100	200	500	101	201	
Flow rate range *1	*3	005	500 ml/min	●								
		010	1 l/min		●							
		020	2 l/min			●						
		050	5 l/min				●					
		100	10 l/min					●				
		200	20 l/min						●			
		500	50 l/min							●		
		101	100 l/min								●	
Port size/ body material	*4	S06	Rc1/8 Stainless steel	●	●	●	●	●	●	(Not for CO ₂)		
		S08	Rc1/4 Stainless steel								●	
		SM5	M5 Stainless steel (custom order)	●	●	●	●	●	●	(Not for CO ₂)		
Flow direction		*2	F	Uni-direction								
			R	Bi-direction								
Working conditions	Applicable fluid *2	*5	Blank	Clean air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1:1 to 5:6:2]), compressed air (JIS B 8392-1:2012 (ISO 8573-1:2010) [1:1:1 to 1:6:2]), nitrogen gas								
			AR	Argon								
			C2	Carbon dioxide (CO ₂)								
	Max. working pressure		1.0 MPa (≈150 psi, 10 bar)									
	Min. working pressure		-0.09 MPa (≈-13 psi, -0.9 bar)									
Proof pressure		1.5 MPa (≈220 psi, 15 bar)										
Operating ambient temperature/humidity		0 (32°F) to 50°C (122°F), 90% RH or less										
Fluid temperature		0 (32°F) to 50°C (122°F) (no condensation)										
Accuracy	Working range		Uni-direction: 3 to 100% F.S., bi-direction: -100 to -3% F.S., 3 to 100% F.S.									
	Linearity (analog output)		Within ±3% F.S. (Secondary side released to atmosphere)									
	Pressure characteristics		Within ±5% F.S. (-0.09 (≈-13 psi) to 0.7 MPa (≈100 psi), where secondary side is released to atmosphere)									
	Temperature characteristics		Within ±0.2% F.S./°C (15 (59°F) to 35°C (95°F), 25°C (77°F) reference)									
*3	Repeatability		Within ±1% F.S.									
Response time		50 ms or less										
Display		Flow bar display										
Output	Analog output	*1	V	1 to 5 V voltage output 1 point (connecting load impedance 50 kΩ and over) *4								
			A	4 to 20 mA current output 1 point (connecting load impedance 0 to 300 Ω)								
Power supply voltage	*5	*1	V	12 to 24 VDC (10.8 to 26.4 V)								
			A	24 VDC (21.6 to 26.4 V)								
Current consumption		*6	50 mA or less									
Lead wire		φ3.7, AWG26 or equivalent x 4-conductor (connector connection), insulator outer diameter φ1.0										
Functions		Analog output, flow bar display, error display										
Installation	Mounting orientation		Unrestricted in vertical/horizontal direction									
	Straight piping section		Not required									
Degree of protection		IEC standards IP40 or equivalent										
Protection circuit		*7	Power reverse connection protection									
EMC Directive		EN55011, EN61000-6-2, EN61000-4-2/3/4/6/8										
Weight (main body only)	*4	S06	Approx. 85 g									
		S08	Approx. 105 g									
		SM5	Approx. 130 g									
Clean-room specifications	*6	P70	Anti-dust generation *8									
		P80	Oil free *9									

*1: The value converted to volumetric flow rate at standard condition (20°C 1 barometric pressure (101 kPa) relative humidity 65%)
 *2: Use dry gas which does not contain corrosive elements such as chlorine, sulfur or acids, and which is clean and does not contain dust or oil mist. When using compressed air, use clean air compliant with JIS B8392-1: 2012 Grade [1:1:1 to 1:6:2]. Compressed air from the compressor contains drainage (water, oil oxides, foreign matter, etc.). To maintain the function of this product, install a filter, air dryer (min. pressure dew point 10°C or less), and oil mist filter (max. oil content 0.1 mg/m³) on the primary side (upstream side) of this product.
 [Recommended circuit]

[Recommended device]
 Air filter: F series
 Oil mist filter: M series

*3: Calibration of this product is performed within specified range. Accuracy conditions: Temperature 25±3 °C, power supply voltage 24±0.01 VDC. F.S. stands for full scale flow rate.
 *4: The output impedance of the analog output section is approx. 1 kΩ. If the impedance of the connecting load is small, output and error increase. Check error with the impedance of the connecting load before using.
 *5: The power supply voltage specifications differ for the voltage output and current output.
 *6: Current for when 24 VDC is connected, and no load is applied. The current consumption will vary depending on how the load is connected.
 *7: This product's protection circuit is effective only for specific misconnections and load short-circuits. It does not provide protection for all misconnections.
 *8: [P70] Anti-dust generation (product surface is degreased and cleaned before packing. Heat sealed into antistatic bag in clean bench (Class 1000 and over).)
 *9: [P80] Oil-free (In addition to P70 specifications, gas-contact sections are degreased and cleaned. Refer to the "Internal structure and parts list" for details on the gas-contact materials.)

F.R.L Separated display specifications

Descriptions				Separated display FSM2-D-[*1][*2]- □ -[*3]	
Settable flow rate range	*1			mℓ	5, 10, 50, 100, 500
				ℓ	1, 2, 4, 5, 10, 12, 20, 25, 32, 50, 100, 200, 500, 1000, 1500
Operating ambient temperature/humidity	0 (32°F) to 50°C (122°F)				
Display	4 digit + 4 digit 2 color LCD				
Input voltage	1 to 5 V				
Output	Switch output	*1	N	Output 2 points (NPN open collector output, 50 mA or less, voltage drop 2.4 V or less)	
			P	Output 2 points (PNP open collector output, 50 mA or less, voltage drop 2.4 V or less)	
Analog output	*2	V	1 to 5 V voltage output 1 point (connecting load impedance 50 kΩ and over) *6		
		A	4 to 20 mA current output 1 point (connecting load impedance 0 to 300 Ω)		
Power supply voltage	*2	V	12 to 24 VDC(10.8 to 26.4 V)		
		A	24 VDC (21.6 to 26.4 V)		
Current consumption	*2			40 mA or less (when 24 VDC is connected, and no load is connected)	
Cable	φ3.7, AWG26 or equivalent x 5-conductor (connector connection), insulator outer diameter φ1.0				
Functions	Flow rate display, flow rate display peak hold, switch output, analog output				
Degree of protection	IEC standards IP40 or equivalent				
Protection circuit	*3			Power reverse connection protection	
EMC Directive	EN55011, EN61000-6-2, EN61000-4-2/3/4/6/8				
Accessory	1 sensor connection connector (e-con), conforming cable AWG24 to 26, insulator outer diameter φ1.0 to 1.2				
Weight (main body only)	Approx. 40 g				
Clean-room specifications	*4	*3	P70	Anti-dust generation	

- *1: The flow rate range, flow direction and gas type are automatically recognized only when the FSM2 display separated is connected. (Default state)
The FSM-H Series, FSM-V Series and WFK3000 Series flow rate ranges are supported in addition to the FSM2 Series, but automatic recognition is supported only with the FSM2 Series. Always set the product's flow rate range, flow direction and gas type before use.
The connectable flow rate ranges are shown in "Display by flow rate range" below.
When the sensor section is changed, the previous flow rate range settings, etc., will still be recorded. Always reset the settings before using.
- *2: Current for when 24 VDC is connected, and no load is connected. The current consumption will vary depending on how the load is connected.
- *3: This product's protection circuit is effective only for specific misconnections and load short-circuits. It does not provide protection for all misconnections.
- *4: [P70] Anti-dust generation (product surface is degreased and cleaned before packing. Heat sealed into antistatic bag in clean bench (Class 1000 and over).)
- *5: When connecting to the FSM-V Series or WFK3000 Series, the cable size is different so a separate compatible sensor connection connector (e-con) will be required. Contact your nearest CKD sales office or dealer.
The enclosed sensor connection connector (e-con) can be used with the FSM Series and FSM-H Series.
- *6: The output impedance of the analog output section is approx. 1 kΩ. If the impedance of the connecting load is small, output and error increase. Check error with the impedance of the connecting load before using.

Display for each flow rate range

Flow rate display	Display range	Uni-direction	0 to 500	0 to 1000	0 to 2.00	0 to 4.00	0 to 5.00	0 to 10.00	0 to 12.0	0 to 20.0	0 to 25.0	0 to 32.0	0 to 50.0	0 to 100.0	0 to 200	0 to 500	0 to 1000	0 to 1.50	0 to 5.00	0 to 10.00	0 to 50.0	0 to 100.0
		mℓ/min	mℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	m ³ /min	mℓ/min	mℓ/min	mℓ/min
		Bi-direction	-500 to 500	-1000 to 1000	-2.00 to 2.00	-	-5.00 to 5.00	-10.00 to 10.00	-	-20.0 to 20.0	-	-	-50.0 to 50.0	-100.0 to 100.0	-200 to 200	-500 to 500	-1000 to 1000	-1.50 to 1.50	-5.00 to 5.00	-10.00 to 10.00	-50.0 to 50.0	-100.0 to 100.0
			mℓ/min	mℓ/min	ℓ/min		ℓ/min	ℓ/min		ℓ/min			ℓ/min	ℓ/min	ℓ/min	ℓ/min	ℓ/min	m ³ /min	mℓ/min	mℓ/min	mℓ/min	mℓ/min
	Display resolution		1 mℓ/min		0.01 ℓ/min			0.1 ℓ/min					1 ℓ/min		0.01 m ³ /min	0.01 mℓ/min		0.1 mℓ/min				
	Display range		9999999 mℓ		99999.99 ℓ			999999.9 ℓ					9999999 ℓ		99999.99 m ³	99999.99 mℓ		999999.9 mℓ				
	Display resolution		1 mℓ		0.01 ℓ			0.1 ℓ					1 ℓ		0.01 m ³	0.01 mℓ		0.1 mℓ				
Integ func *2	Integrated pulse output rate		5 mℓ	10 mℓ	0.02 ℓ	0.04 ℓ	0.05 ℓ	0.1 ℓ	0.12 ℓ	0.2 ℓ	0.25 ℓ	0.32 ℓ	0.5 ℓ	1 ℓ	2 ℓ	5 ℓ	10 ℓ	15 ℓ	0.05 mℓ	0.1 mℓ	0.5 mℓ	1 mℓ

- *1: The flow rate display is rounded off at approx. ±1% F.S. or less (forced zero).
- *2: The integrating flow is a calculated (reference) value. It is reset when the power is turned OFF.
- * The corresponding sensor is the voltage output (1-5 V). If the current output or other voltage output is connected, it will not operate properly.

MEMO

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

How to order

● Display integrated, display separated, needle valve integrated

FSM2 - A V R 005 - S06 AR 1 B K N - P70

A Output

B Analog output
*2

C Flow direction

D Flow rate

* Refer to the table on the next page for the flow rate, port size (body material), and gas combinations.

E Port size (body material)
*3

F Applicable fluid

G Cable

H Bracket

I Traceability

J With needle valve

K Clean-room specifications

Code	Content
A Output	
A *1	External display (1 analog output)(Setting invalid for needle valve)
N	Integrated display (2 switch outputs (NPN), 1 analog output)
P	Integrated display (2 switch outputs (PNP), 1 analog output)

B Analog output	
V	Voltage output (1 to 5 V)
A	Current output (4 to 20 mA)

C Flow direction	
F	Uni-direction
R	Bi-direction (Setting not valid for type with needle valve)

D Flow rate (full scale flow rate)	
005	500 ml/min
010	1 l/min
020	2 l/min
050	5 l/min
100	10 l/min
200	20 l/min
500	50 l/min
101	100 l/min
201	200 l/min
501	500 l/min (Setting invalid for needle valve)
102	1000 l/min (Setting invalid for needle valve)

E Port size (body material)	
H04	Push-in φ4 (resin)
H06	Push-in φ6 (resin)
H08	Push-in φ8 (resin)
H10	Push-in φ10 (resin)
S06	Rc1/8 (stainless steel)
S08	Rc1/4 (stainless steel)
A15	Rc 1/2 (aluminum) (Setting invalid for needle valve)
SM5	M5 (stainless steel) (custom order product) (Setting invalid for needle valve)

F Applicable fluid	
Blank	Air, nitrogen gas
AR	Argon
C2	Carbon dioxide

G Cable	
Blank	None
1	1 m
3	3 m

H Bracket	
Blank	None
B	With bracket
P *1	Panel mounting kit

I Traceability	
Blank	None
T	Traceability with series variation diagram/company cert.
K	With company certification

J With needle valve	
Blank	None
N	Needle valve integrated

K Clean-room specifications	
Blank	None
P70	Anti-dust generation
P80	Oil free

[Example of model No.]

FSM2-NVF005-S06AR1BKN-P70

Model: RAPIFLOW FSM2

- A** Output : Display integrated (NPN)
- B** Analog output : Voltage output (1 to 5 V)
- C** Flow direction : Uni-direction
- D** Flow rate : 500 ml/min
- E** Port size (body material) : Rc 1/8 (stainless steel)
- F** Applicable fluid : Argon
- G** Cable : 1 m
- H** Bracket : With bracket
- I** Traceability : With company certification
- J** With needle valve : With needle valve
- K** Clean-room specifications : Anti-dust generation

⚠ Precautions for model No. selection

*1: For the **A** Output "A", the **H** Panel mounting option "P" cannot be selected.
The separated display is not enclosed with the Item **A** output "A".

*2: When using the FSM2-D for the separated display with the display separated, select "V".

*3: For the **E** Port size "A15", the **H** Panel mounting option "P" cannot be selected.

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckW/other
- Jnt/tube
- AirUnt
- PresCompn
- Mech/ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

Flow rate, port size (body material), and compatible needle valve combinations

		E Port size (body material)							
		H04	H06	H08	H10	S06	S08	A15	SM5
D Flow rate	005	●◆	●◆			●○△◆			●○△
	010	●◆	●◆			●○△◆			●○△
	020	●◆	●◆			●○△◆			●○△
	050	●◆	●◆			●○△◆			●○△
	100	●◆	●◆			●○△◆			●○△
	200	●◆	●◆			●○△◆			●○
	500		●◆	●◆		●○◆	●○△◆		
	101			●◆	●◆		●○△◆		
	201			●◆	●◆		●◆		
	501							●	
102							●		

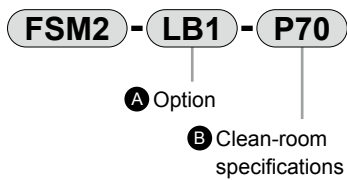
- F Gas
- : Air, nitrogen gas
 - : Argon
 - △ : Carbon dioxide
 - : Not available
- J With needle valve
- ◆ : Needle valve integrated

Combination of port size and clean-room specifications

		E Port size (body material)							
		H04	H06	H08	H10	S06	S08	A15	SM5
K Clean-room specifications	P70	●	●	●	●	●	●	●	●
	P80	●	●			●	●	●	●

- : Available
- : Not available

Discrete option model No.

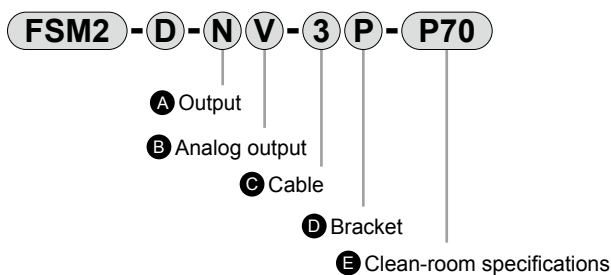


Code	Content
A Option	
LB1	Bracket (for φ4, φ6, φ8, φ10, Rc1/8, Rc1/4, M5)
LB2	Bracket (for Rc1/2)
KHS	Panel mounting kit (for display integrated, for separated display) *
KHS-N	Panel mounting kit (for needle valve integrated)
C51	5-conductor cable 1 m (integrated/non-integrated display)
C53	5-conductor cable 3 m (integrated/non-integrated display)
C41	4-conductor cable 1 m (for display separated)
C43	4-conductor cable 3 m (for display separated)

Code	Content
B Clean-room specifications	
Blank	None
P70	Anti-dust generation

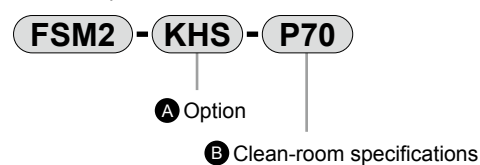
* The panel mounting kit cannot be mounted on the FSM2-□-A15□.

● Separated display



Code	Content
A Output	
N	Switch output (NPN) 2 points, analog output 1 point
P	Switch output (PNP) 2 points, analog output 1 point
B Analog output	
V	Voltage output (1 to 5 V)
A	Current output (4 to 20 mA)
C Cable	
Blank	None
1	1 m
3	3 m
D Bracket	
Blank	None
P	Panel mounting kit
E Clean-room specifications	
Blank	None
P70	Anti-dust generation

Discrete option model No.



Code	Content
A Option	
KHS	Panel mounting kit set
C51	5-conductor cable 1 m (for display integrated, for separated display)
C53	5-conductor cable 3 m (for display integrated, for separated display)
EC	Sensor connection connector (e-con) 5pcs. set
B Clean-room specifications	
Blank	None
P70	Anti-dust generation

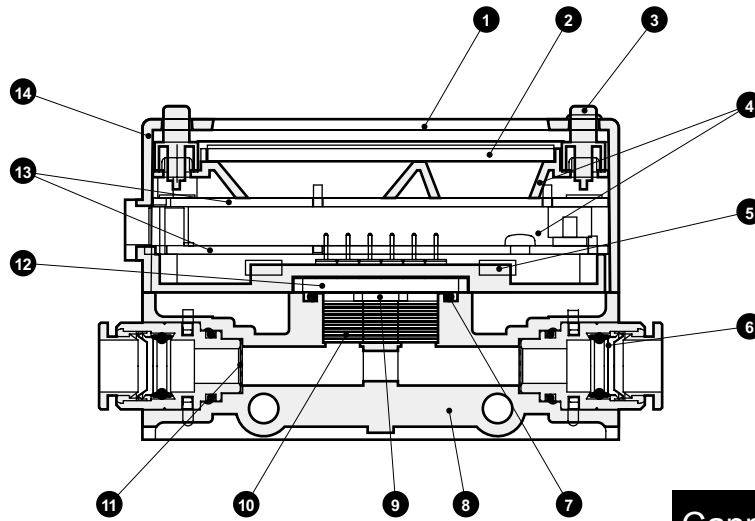
CAUTION The corresponding sensor is the voltage output (1-5 V). If the current output or other voltage output is connected, it doesn't operate properly. Use the FSM2-AV □ when using the FSM2.

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/
PTFE FRL
Outdrs FR
F.R.L
(Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/
other
Jnt/tube
AirUnt
PresCompn
Mech/
ElecPresSw
ContactSW
AirSens
PresSW
Cool
AirFloSens/
Contr
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/
PTFE FRL
Outdrs FR
F.R.L
(Related)
CompFRL
LgFRL
PrecsR
VacFR
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/
other
Jnt/tube
AirUnt
PrecsCompn
Mech/
ElecPresSw
ContactSW
AirSens
PresSW
Cool
AirFloSens/
Contr
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

Internal structure and parts list

● Display integrated resin body port size $\phi 6$ push-in



Cannot be disassembled

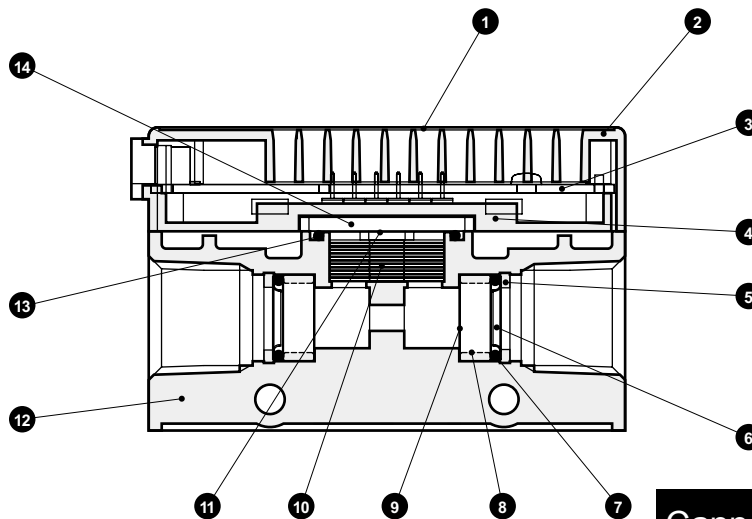
Main parts list

* The part materials are subject to change without notice.

No.	Part name	Material	No.	Part name	Material
1	Liquid crystal cover	Acrylic resin	8	Resin body (*)	Polyamide resin
2	Liquid crystal	-	9	Sensor chip (*)	Semiconductor chip
3	Switch	Ethylene/propylene diene rubber	10	Rectification plate (*)	Stainless steel
4	Base spacer	Polycarbonate resin	11	Port filter (*)	Stainless steel
5	Module holder	PPS resin	12	Sensor board (*)	Alumina
6	Push-in fitting	-	13	Electronic circuit board	-
7	Sensor gasket (*)	Fluoro rubber	14	Case	ABS resin

(*)...Cleaning parts for P80 specifications

● Display separated stainless steel body port size Rc1/4



Cannot be disassembled

Main parts list

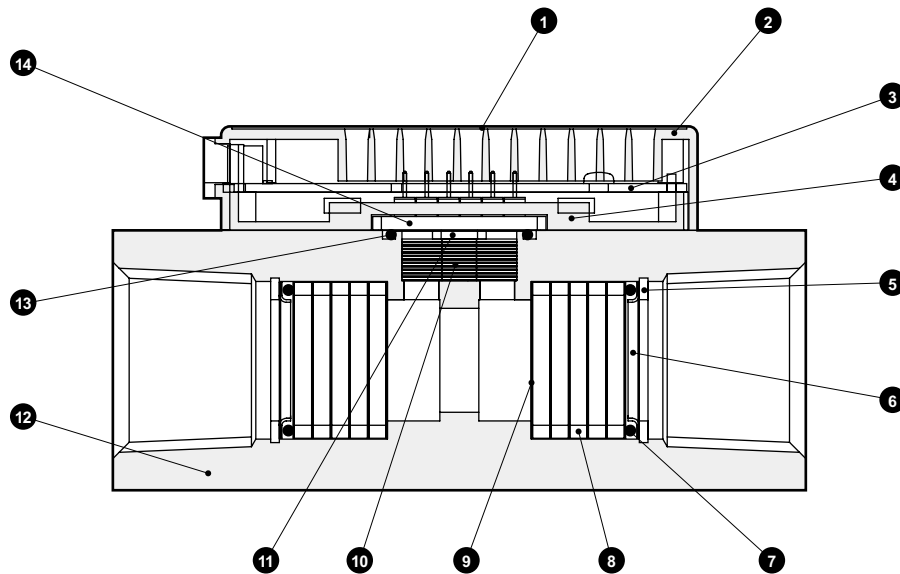
* The part materials are subject to change without notice.

No.	Part name	Material	No.	Part name	Material
1	Front sheet	Polyethylene film	8	Spacer (*)	Stainless steel
2	Case	ABS resin	9	Port filter (*)	Stainless steel
3	Electronic circuit board	-	10	Rectification plate (*)	Stainless steel
4	Module holder	PPS resin	11	Sensor chip (*)	Semiconductor chip
5	C-ring (*)	Stainless steel	12	Stainless steel body (*)	Stainless steel
6	O-ring holder (*)	Stainless steel	13	Sensor gasket (*)	Fluoro rubber
7	O-ring (*)	Fluoro rubber	14	Sensor board (*)	Alumina

(*)...Cleaning parts for P80 specifications

Internal structure and parts list

- Display separated aluminum body port size Rc1/2



Cannot be disassembled

Main parts list

* The part materials are subject to change without notice.

No.	Part name	Material	No.	Part name	Material
1	Front sheet	Polyester film	8	Spacer (*)	Aluminum alloy
2	Case	ABS resin	9	Port filter (*)	Stainless steel
3	Electronic circuit board	-	10	Rectification plate (*)	Stainless steel
4	Module holder	PPS resin	11	Sensor chip (*)	Semiconductor chip
5	C-ring (*)	Stainless steel	12	Aluminum body (*)	Aluminum
6	O-ring holder (*)	Stainless steel	13	Sensor gasket (*)	Fluoro rubber
7	O-ring (*)	Fluoro rubber	14	Sensor board (*)	Alumina

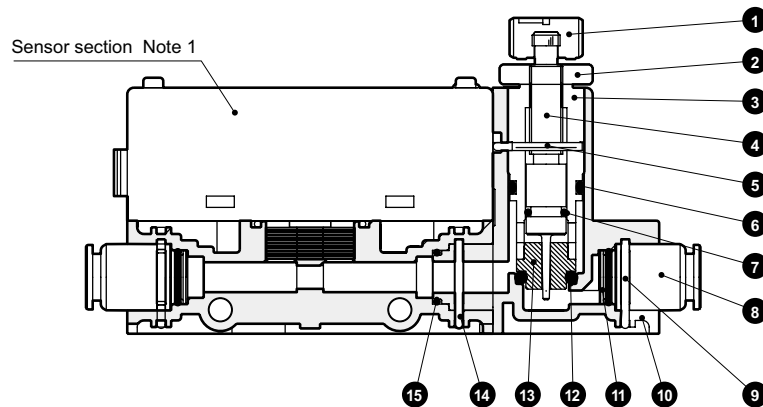
(*)...Cleaning parts for P80 specifications

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/
PTFE FRL
Outdrs FR
F.R.L
(Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneUR
AirBoost
SpdContr
Silncr
CheckV/
other
Jnt/tube
AirUnt
PresCompn
Mech/
ElecPresSw
ContactSW
AirSens
PresSW
Cool
AirFloSens/
Contr
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

Internal structure and parts list

● With needle valve (resin body) FSM2-□-H□N



Cannot be disassembled

Main parts list

* The part materials are subject to change without notice.

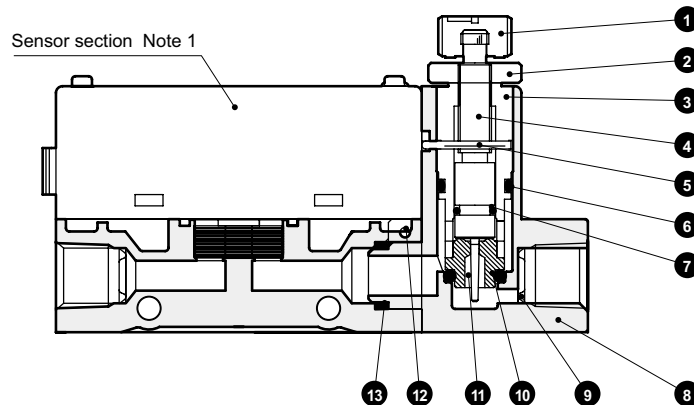
No.	Part name	Material	No.	Part name	Material
1	Knob	Polybutylene terephthalate	9	Fitting fixing pin	Stainless steel
2	Lock nut	Copper alloy/nickeling	10	Needle valve body	Polyamide resin
3	Needle guide	Copper alloy/nickeling	11	Port filter	Stainless steel
4	Needle	Copper alloy/nickeling *2	12	O-ring	Fluoro rubber
5	Fixing pin	Stainless steel	13	Orifice	Copper alloy/nickeling *3
6	O-ring	Fluoro rubber (fluoro resin coating)	14	Fitting fixing pin	Stainless steel
7	O-ring	Fluoro rubber (fluoro resin coating)	15	O-ring	Fluoro rubber (fluoro resin coating)
8	Cartridge fitting	-			

*1: Refer to page 1246 for details on the sensor's main components.

*2: The needle is stainless steel for FSM2-□005/010/020.

*3: The orifice is PTFE for FSM2-□005/010/020.

● With needle valve (stainless steel body) FSM2-□-S□N



Cannot be disassembled

Main parts list

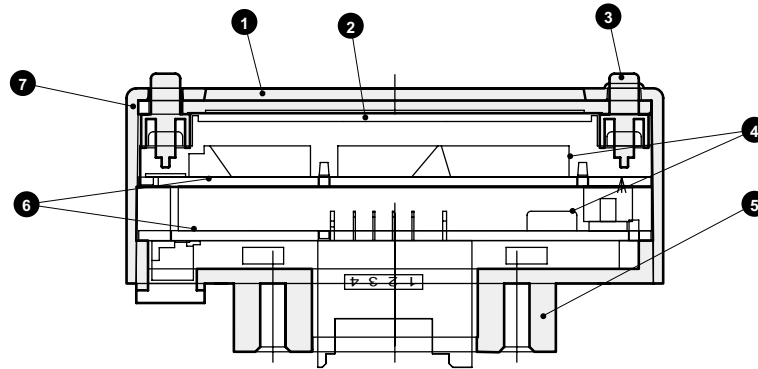
* The part materials are subject to change without notice.

No.	Part name	Material	No.	Part name	Material
1	Knob	Polybutylene terephthalate	8	Needle valve body	Stainless steel
2	Lock nut	Copper alloy/nickeling	9	Port filter	Stainless steel
3	Needle guide	Stainless steel	10	O-ring	Fluoro rubber
4	Needle	Stainless steel	11	Orifice	Tetra fluoro resin
5	Fixing pin	Stainless steel	12	Spring pin	Stainless steel
6	O-ring	Fluoro rubber (fluoro resin coating)	13	O-ring	Fluoro rubber (fluoro resin coating)
7	O-ring	Fluoro rubber (fluoro resin coating)			

*1: Refer to page 1246 for details on the sensor's main components.

Internal structure and parts list

- Separated display FSM2-D-□



Cannot be disassembled

Main parts list

* The part materials are subject to change without notice.

No.	Part name	Material	No.	Part name	Material
1	Liquid crystal cover	Acrylic resin	5	Back surface cover	Polyamide resin
2	Liquid crystal	-	6	Electronic circuit board	-
3	Switch	Ethylene/propylene rubber	7	Case	ABS resin
4	Base spacer	Polycarbonate resin			

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/
PTFE FRL
- Outdrs FR
- F.R.L
(Related)
- CompFRL
- LgFRL
- PrescR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/
other
- Jnt/tube
- AirUnt
- PresCompn
- Mech/
ElecPresSw
- ContactSW
- AirSens
- PresSW
Cool
- AirFloSens/
Contr
- WaterRISens
- TotAirSys
(Total Air)
- TotAirSys
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
etc
- Ending

FSM2 Series

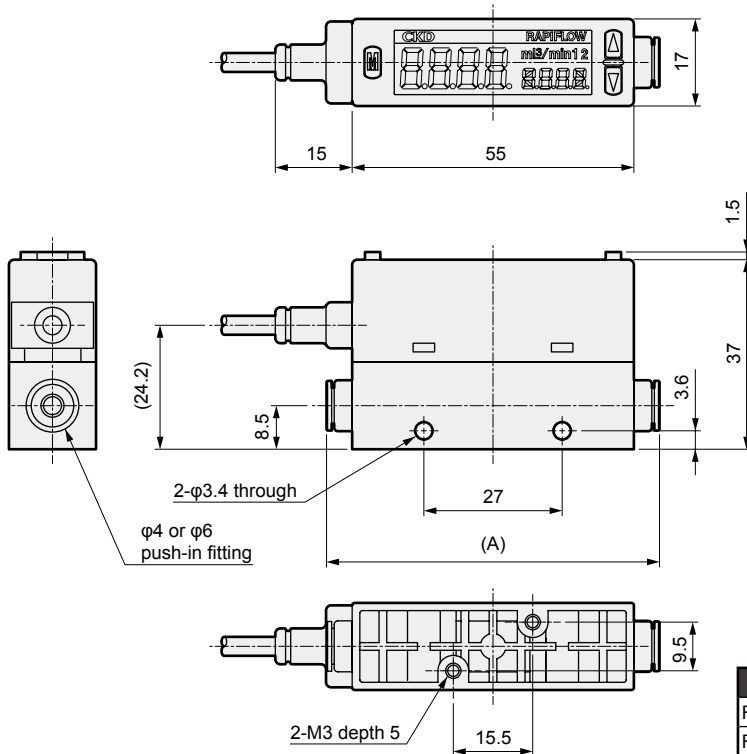


- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/
PTFE FRL
- Outdrs FR
- F.R.L
(Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/
other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/
ElecPresSw
- ContactSW
- AirSens
- PresSW
Cool
- AirFloSens/
Contr
- WaterRtSens
- TotAirSys
(Total Air)
- TotAirSys
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischr
etc
- Ending

Dimensions (display integrated)

Display integrated, port size: push-in $\phi 4$, $\phi 6$

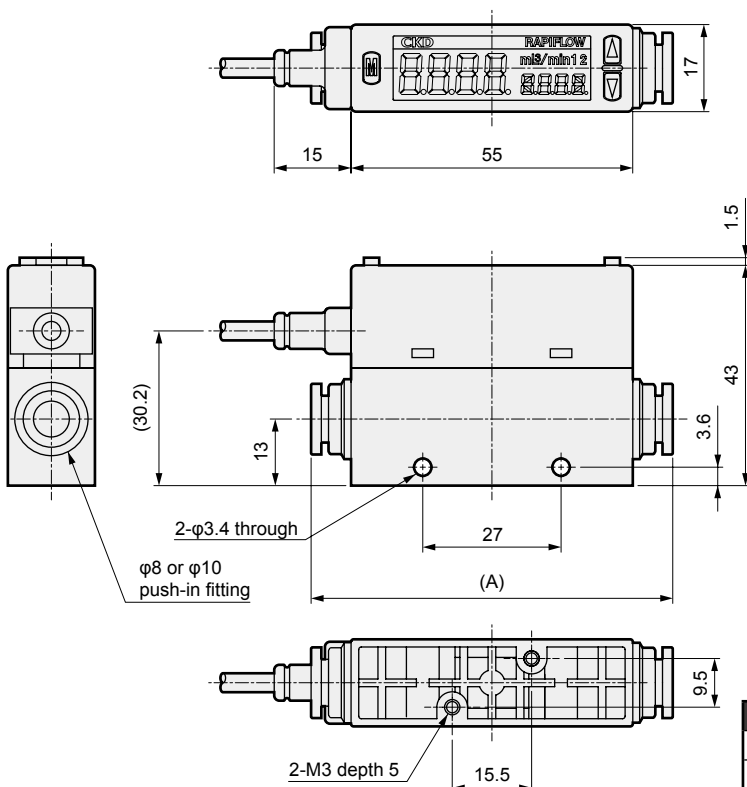
● FSM2-N/P □ -H04/H06 □ (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Model No.	Fitting	Dimension (A)
FSM2-N/P□-H04□	Push-in $\phi 4$	64.9
FSM2-N/P□-H06□	Push-in $\phi 6$	67.2

Display integrated, port size: push-in $\phi 8$, $\phi 10$

● FSM2-N/P □ -H08/H10 □ (full scale flow rate: 50, 100, 200l/min)



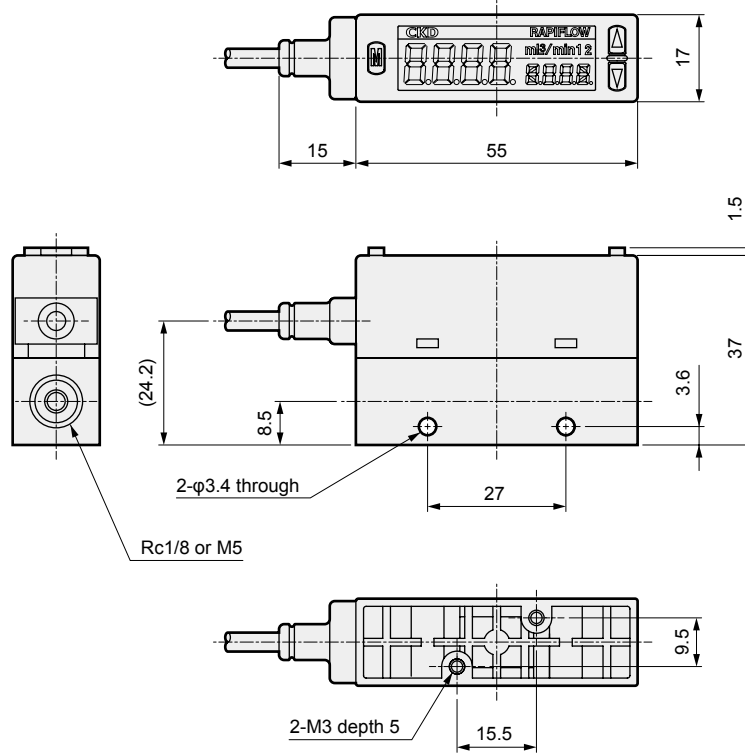
Model No.	Fitting	Dimension (A)
FSM2-N/P□-H08□	Push-in $\phi 8$	70.6
FSM2-N/P□-H10□	Push-in $\phi 10$	82.2

Dimensions (display integrated)



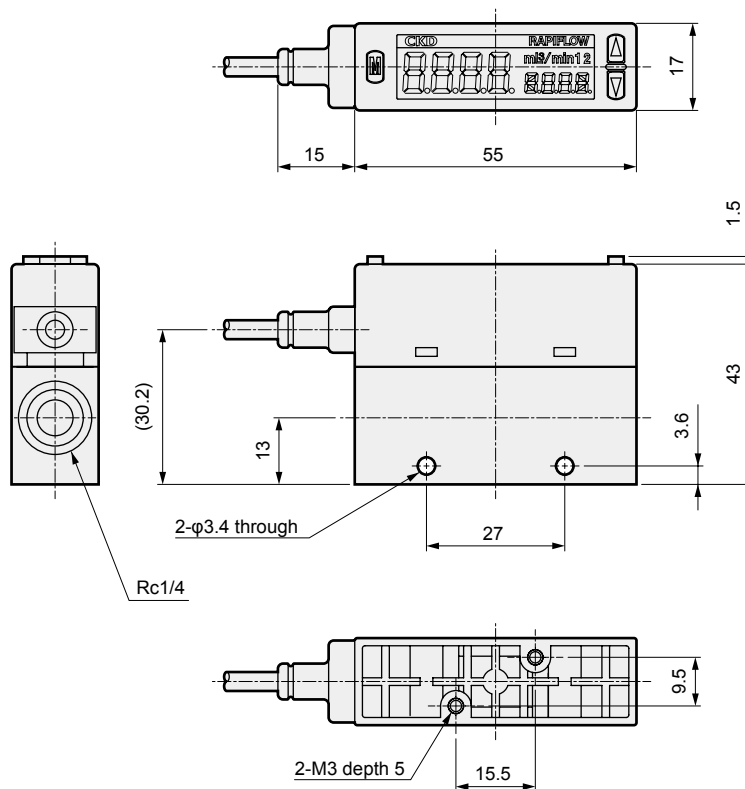
Display integrated, port size: Rc1/8, M5

- FSM2-N/P □ -S06/SM5 □ (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Display integrated, port size: Rc1/4

- FSM2-N/P □ -S08 □ (full scale flow rate: 50, 100, 200 l/min)



F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

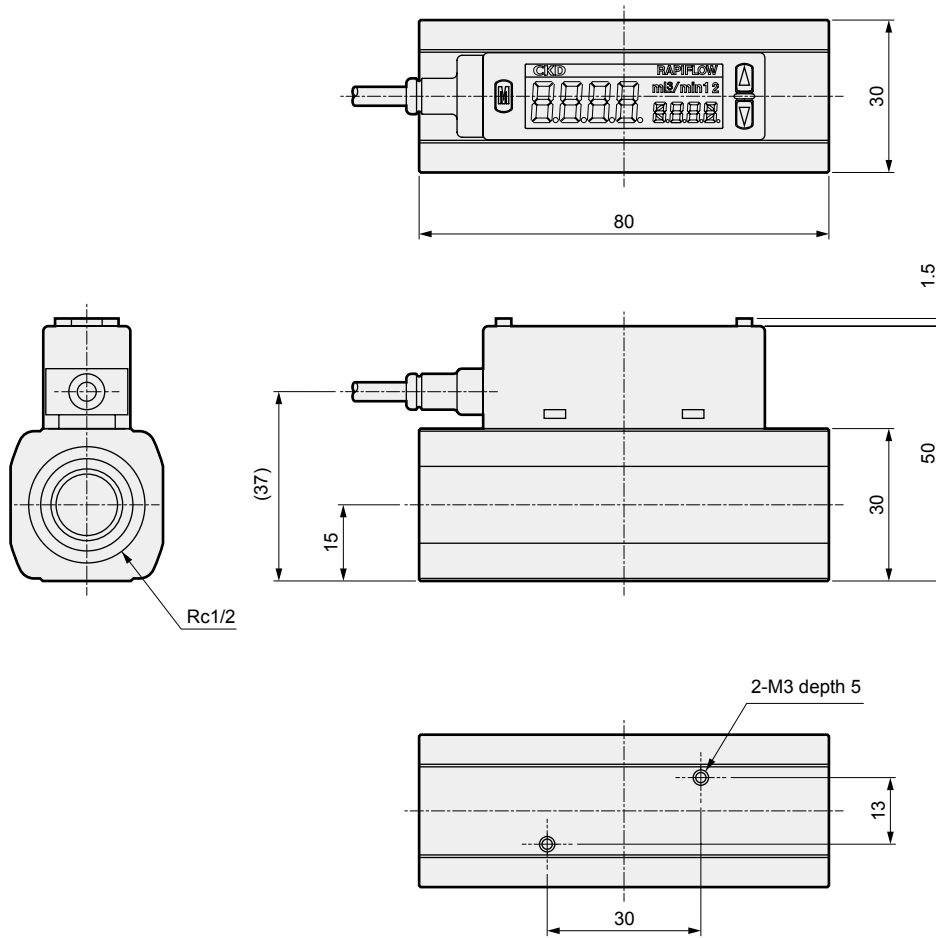


- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/
PTFE FRL
- Outdrs FR
- F.R.L
(Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/
other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/
ElecPresSw
- ContactSW
- AirSens
- PresSW
Cool
- AirFloSens/
Contr
- WaterRtSens
- TotAirSys
(Total Air)
- TotAirSys
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
etc
- Ending

Dimensions (display integrated)

Display integrated, port size: Rc1/2

● FSM2-N/P □ -A15 □ (full scale flow rate: 500, 1000 l/min)

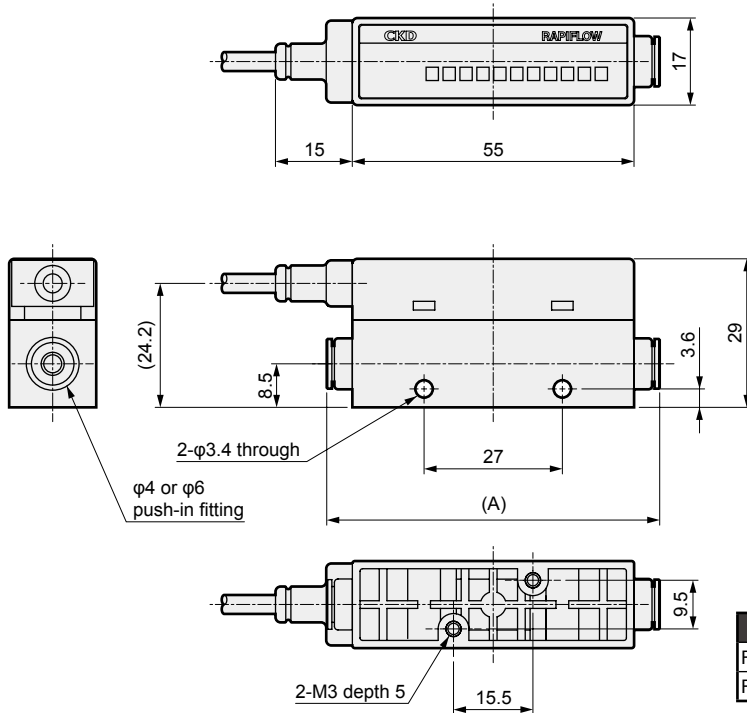


Dimensions (display separated)



Display separated, port size: push-in $\phi 4$, $\phi 6$

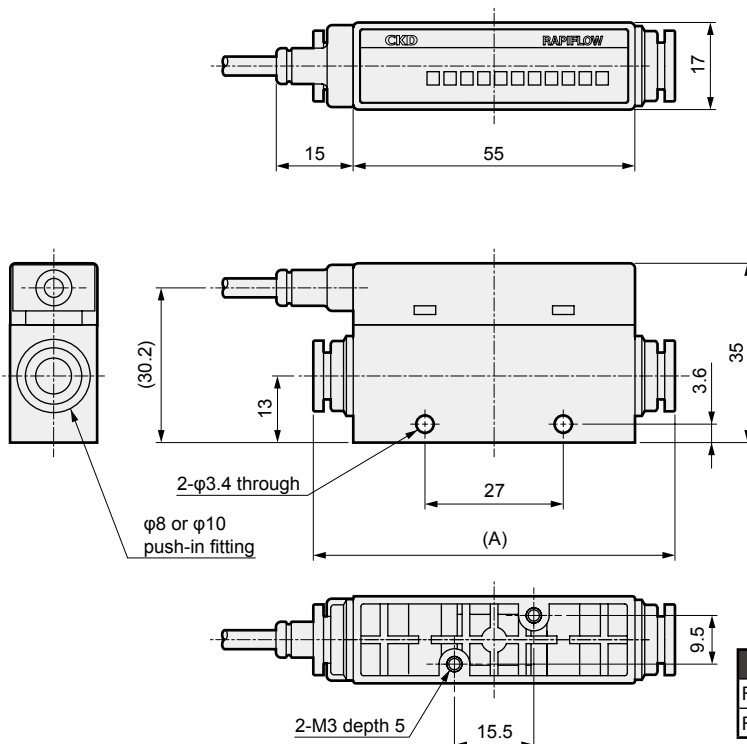
- FSM2-A □ -H04/H06 □ (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Model No.	Fitting	Dimension (A)
FSM2-A □ -H04 □	Push-in $\phi 4$	64.9
FSM2-A □ -H06 □	Push-in $\phi 6$	67.2

Display separated, port size: push-in $\phi 8$, $\phi 10$

- FSM2-A □ -H08/H10 □ (full scale flow rate: 50, 100, 200 l/min)



Model No.	Fitting	Dimension (A)
FSM2-A □ -H08 □	Push-in $\phi 8$	70.6
FSM2-A □ -H10 □	Push-in $\phi 15$	82.2

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrescR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/other
- Jnt/tube
- AirUnt
- PresCompn
- Mech/ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrng etc
- Ending

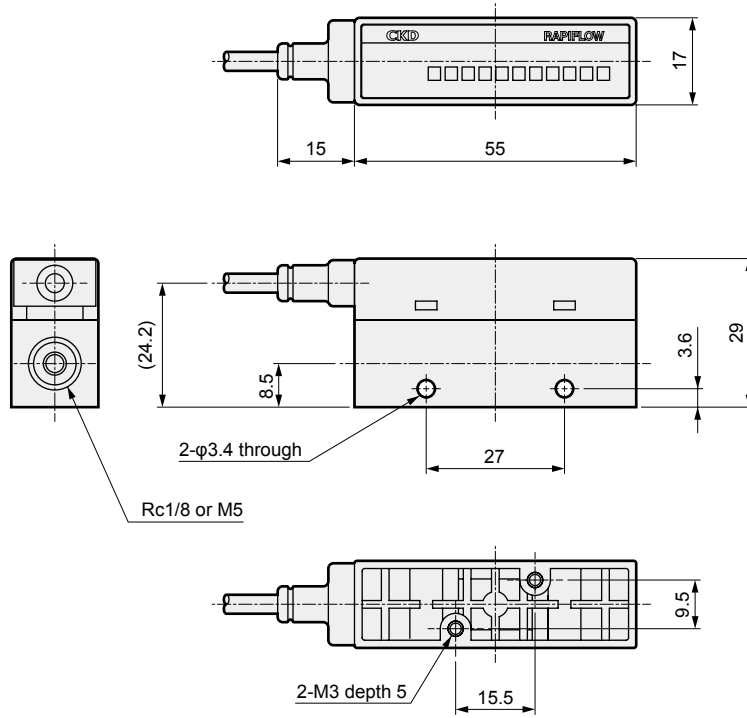


- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/
PTFE FRL
- Outdrs FR
- F.R.L
(Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/
other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/
ElecPresSw
- ContactSW
- AirSens
- PresSW
Cool
- AirFloSens/
Contr
- WaterRtSens
- TotAirSys
(Total Air)
- TotAirSys
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
etc
- Ending

Dimensions (display separated)

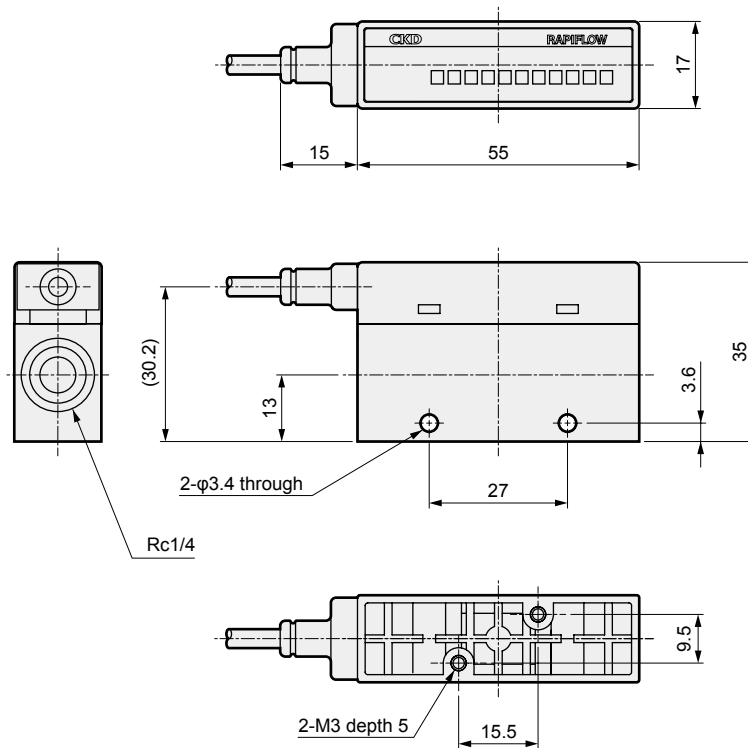
Display separated, port size: Rc1/8, M5

● FSM2-A □ -S06/SM5 □ (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Display separated, port size: Rc1/4

● FSM2-A □ -S08 □ (full scale flow rate: 50, 100, 200 l/min)

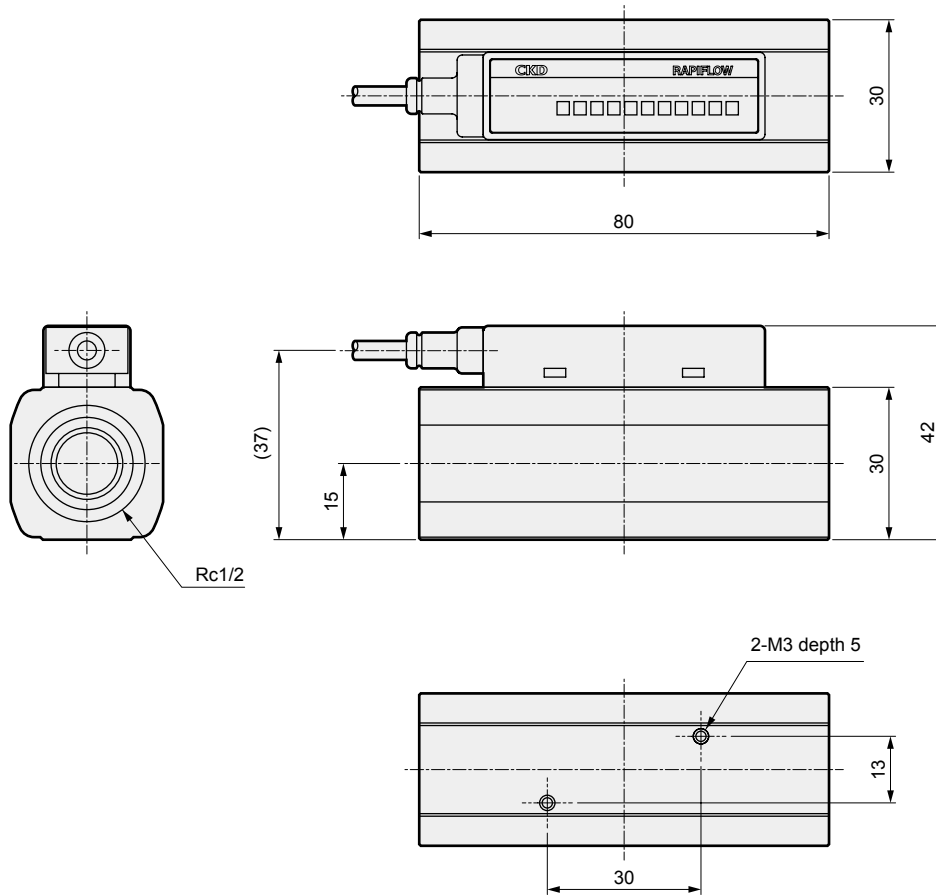


Dimensions (display separated)



Display separated, port size: Rc1/2

● FSM2-A □ -A15 □ (full scale flow rate: 500, 1000 l/min)

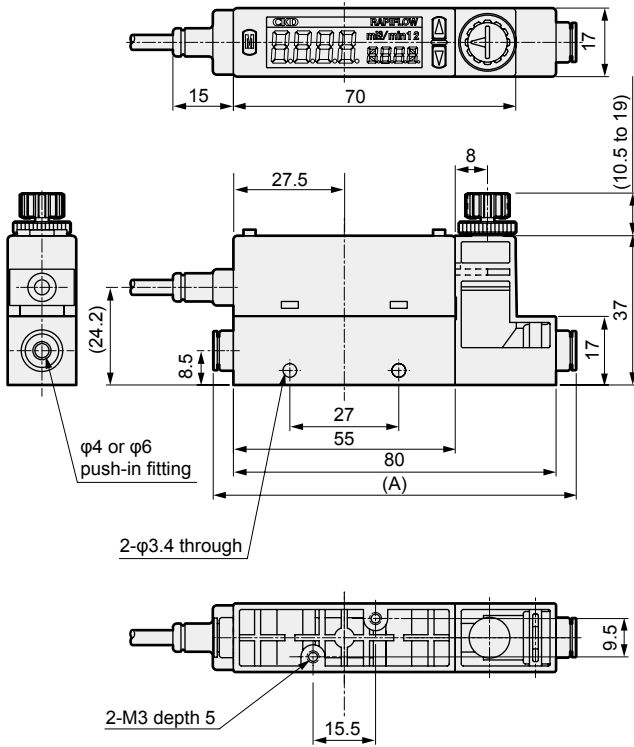


F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending



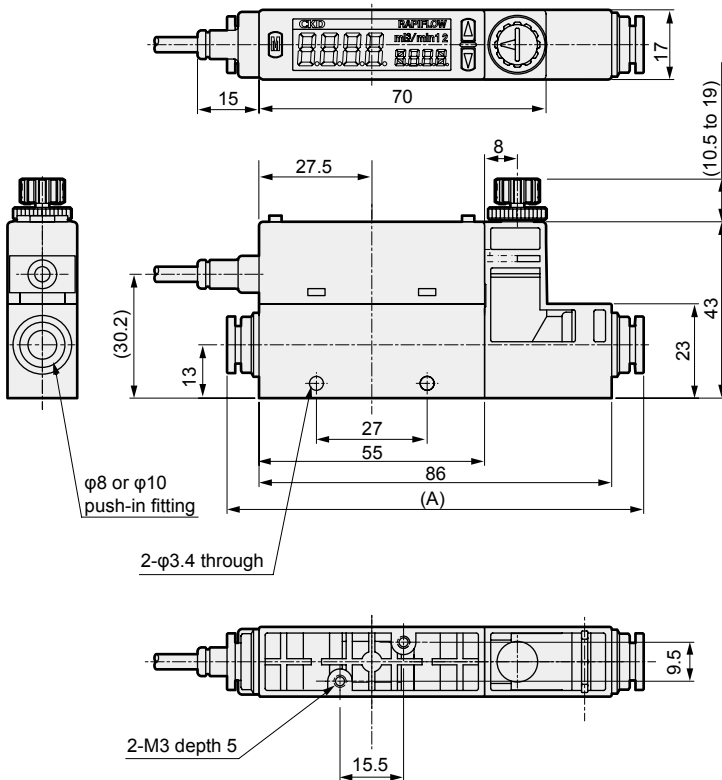
F.R.L Dimensions (display integrated, needle valve integrated)

- F (Filtr) Display integrated, port size: push-in $\phi 4$, $\phi 6$
- R (Reg) ● FSM2-N/P □ -H04/H06 □ N (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Model No.	Fitting	Dimension (A)
FSM2-N/P□-H04□	Push-in $\phi 4$	89.9
FSM2-N/P□-H06□	Push-in $\phi 6$	92.2

- Display integrated, port size: push-in $\phi 8$, $\phi 10$
- FSM2-N/P □ -H08/H10 □ N (full scale flow rate: 50, 100, 200 l/min)



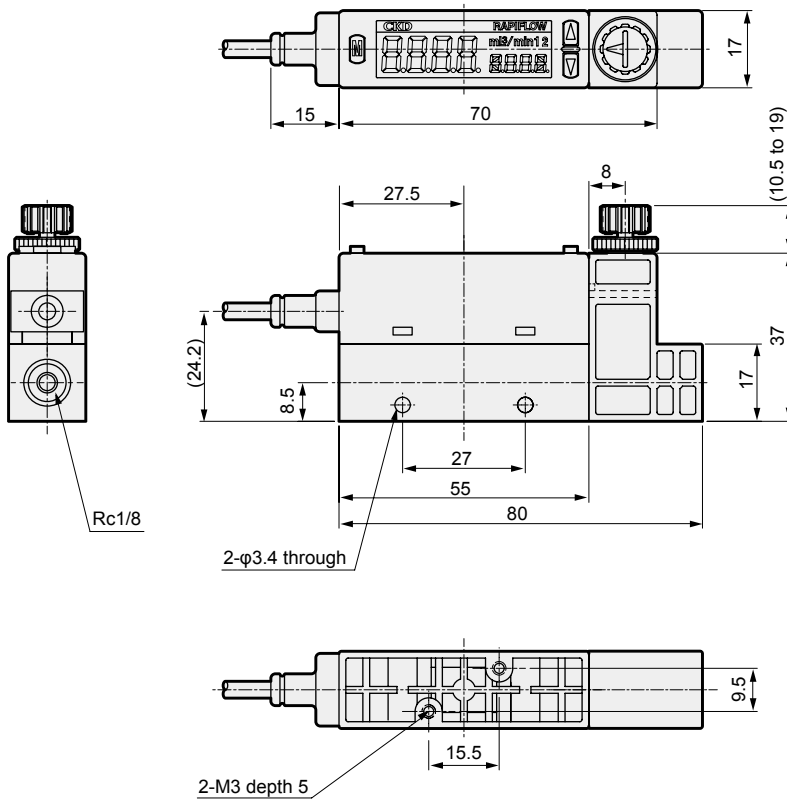
Model No.	Fitting	Dimension (A)
FSM2-N/P□-H08□	Push-in $\phi 8$	101.6
FSM2-N/P□-H10□	Push-in $\phi 10$	113.2



Dimensions (display integrated, needle valve integrated)

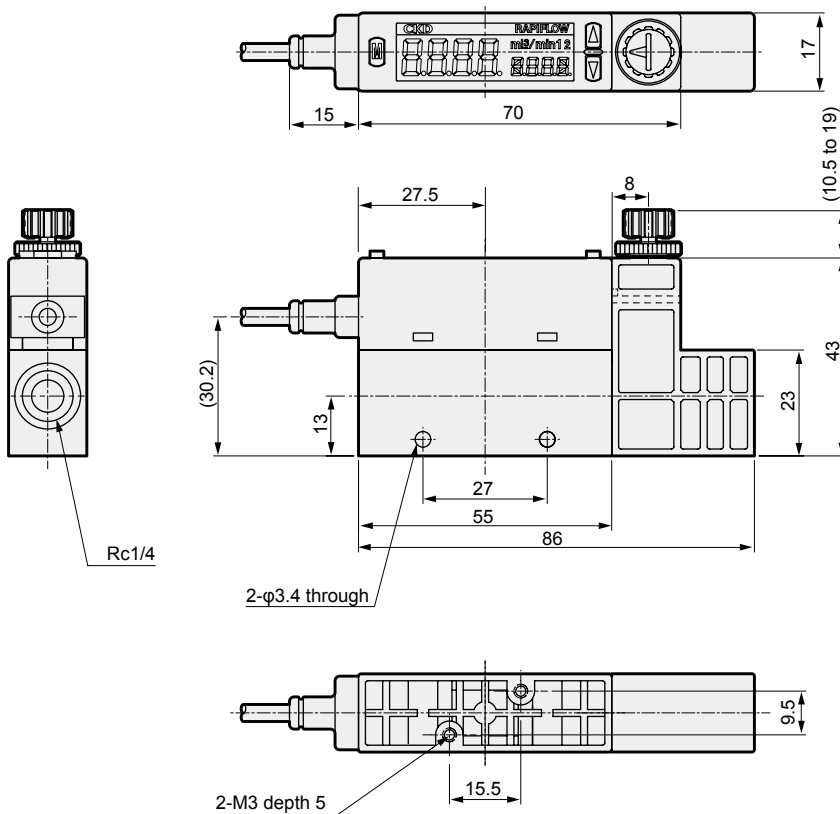
Display integrated, port size: Rc1/8

- FSM2-N/P □ -S06 □ N (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Display integrated, port size: Rc1/4

- FSM2-N/P □ -S08/ □ N (full scale flow rate: 50, 100, 200 l/min)



F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

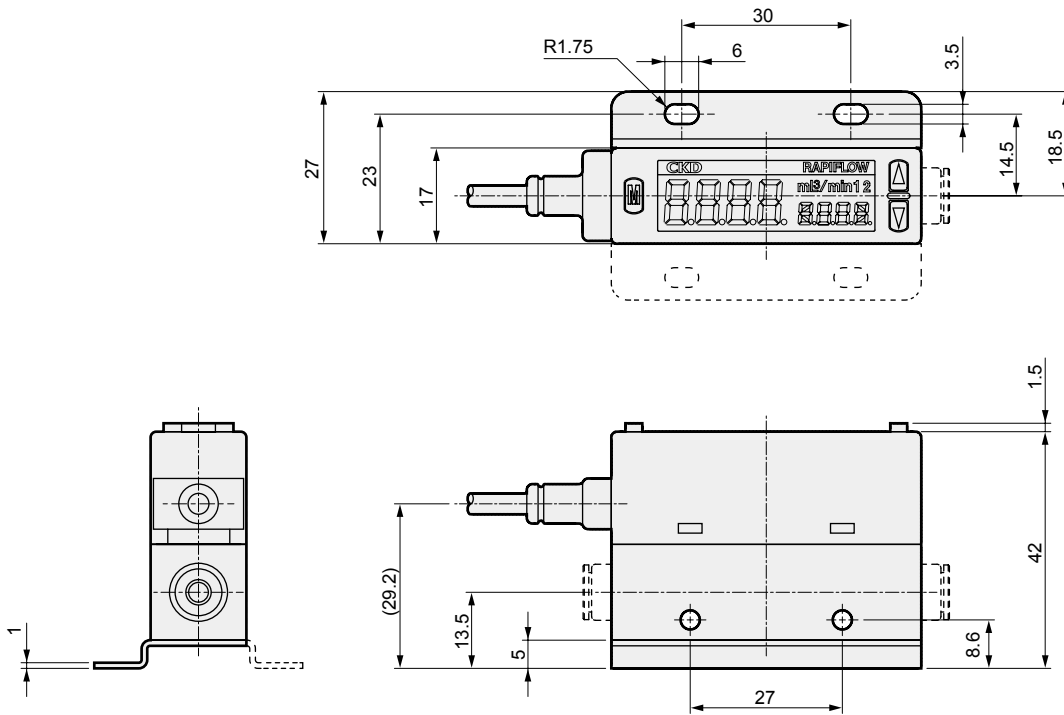


F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Dimensions with options (B: With bracket)

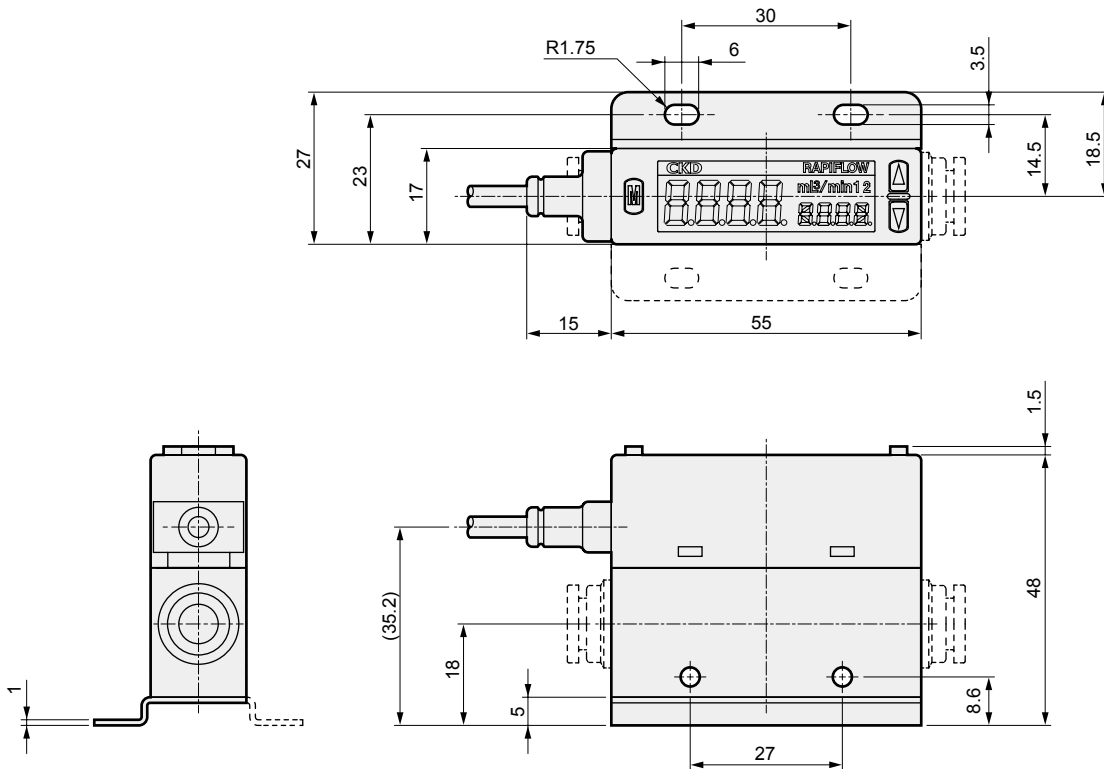
Display integrated, port size: push-in $\phi 4$, $\phi 6$, Rc1/8, M5

● FSM2-N/P □ -H04/H06/S06/SM5 □ B (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Display integrated, port size: push-in $\phi 8$, $\phi 10$, Rc1/4

● FSM2-N/P □ -H08/H10/S08 □ B (full scale flow rate: 50, 100, 200 l/min)

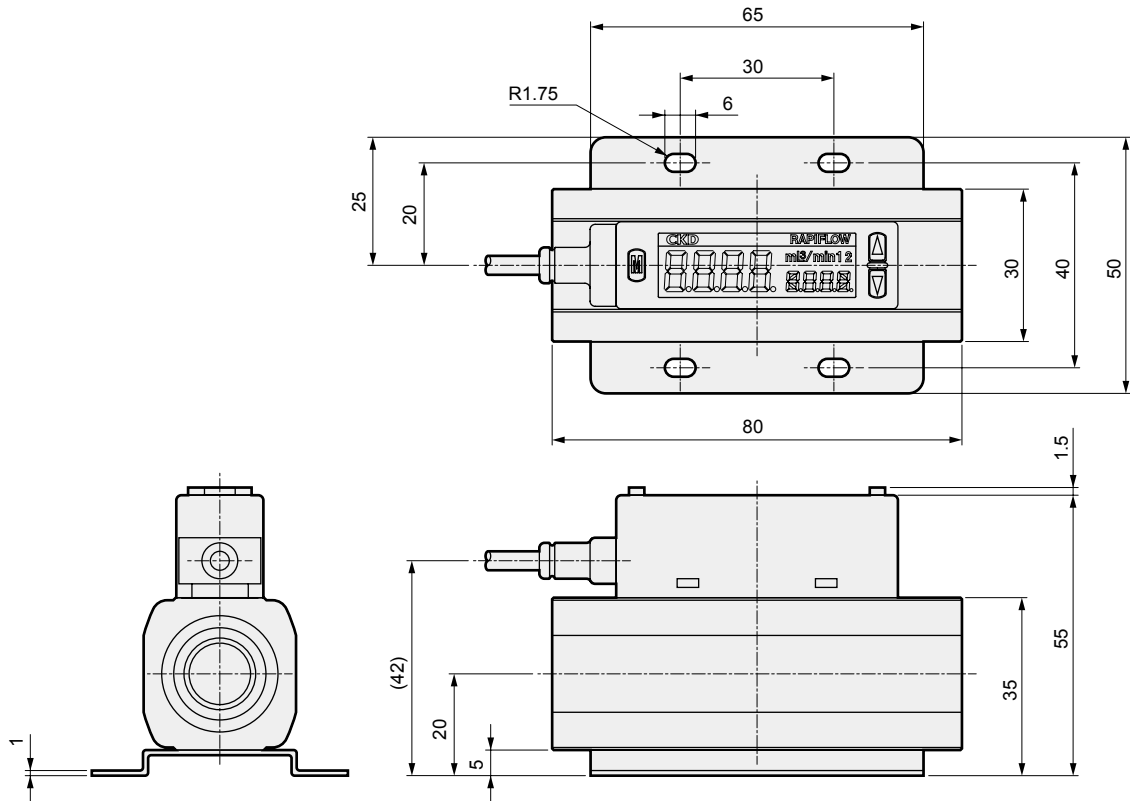


Dimensions with options (B: With bracket)



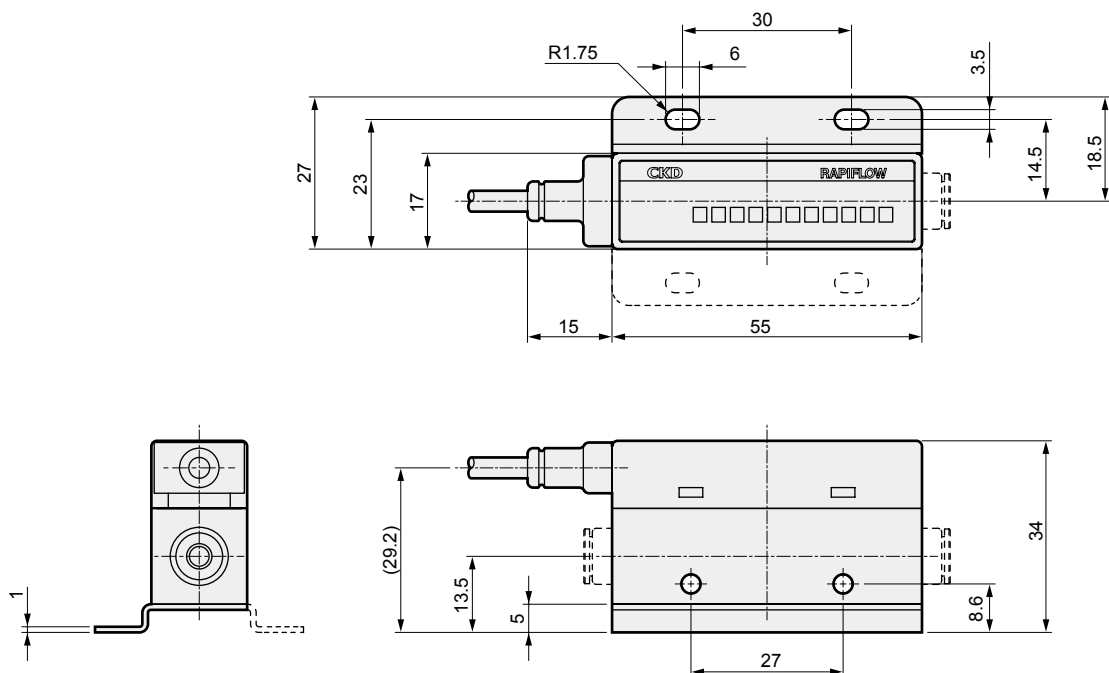
Display integrated, port size: Rc1/2

- FSM2-N/P -A15 B (full scale flow rate: 500, 1000 l/min)



Display separated, port size: push-in $\phi 4$, $\phi 6$, Rc1/8, M5

- FSM2-A -H04/H06/S06/SM5 B (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

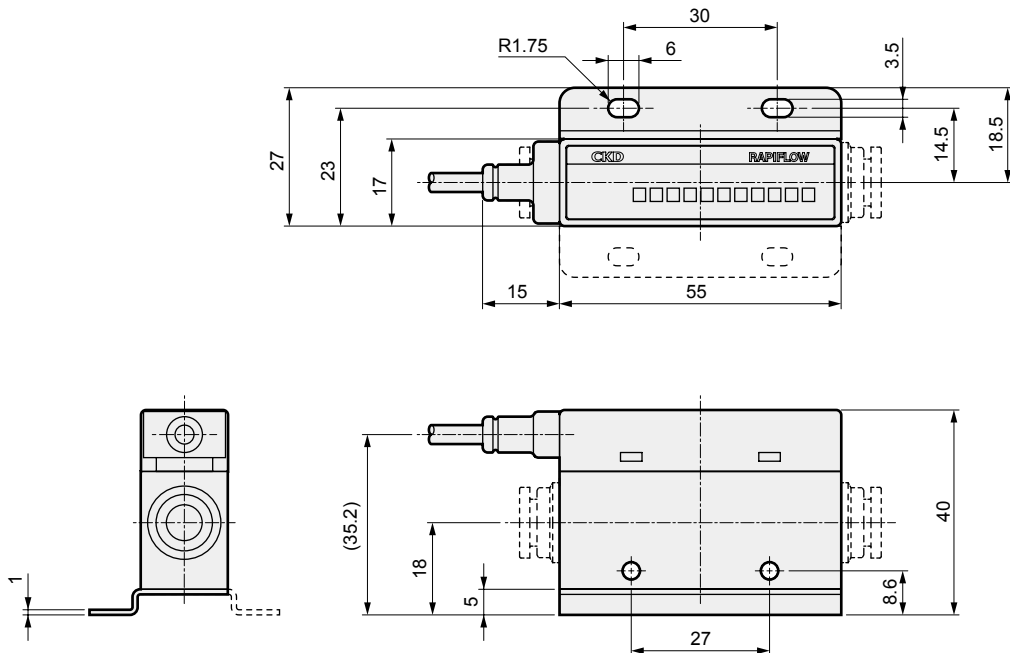


F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Dimensions with options (B: With bracket)

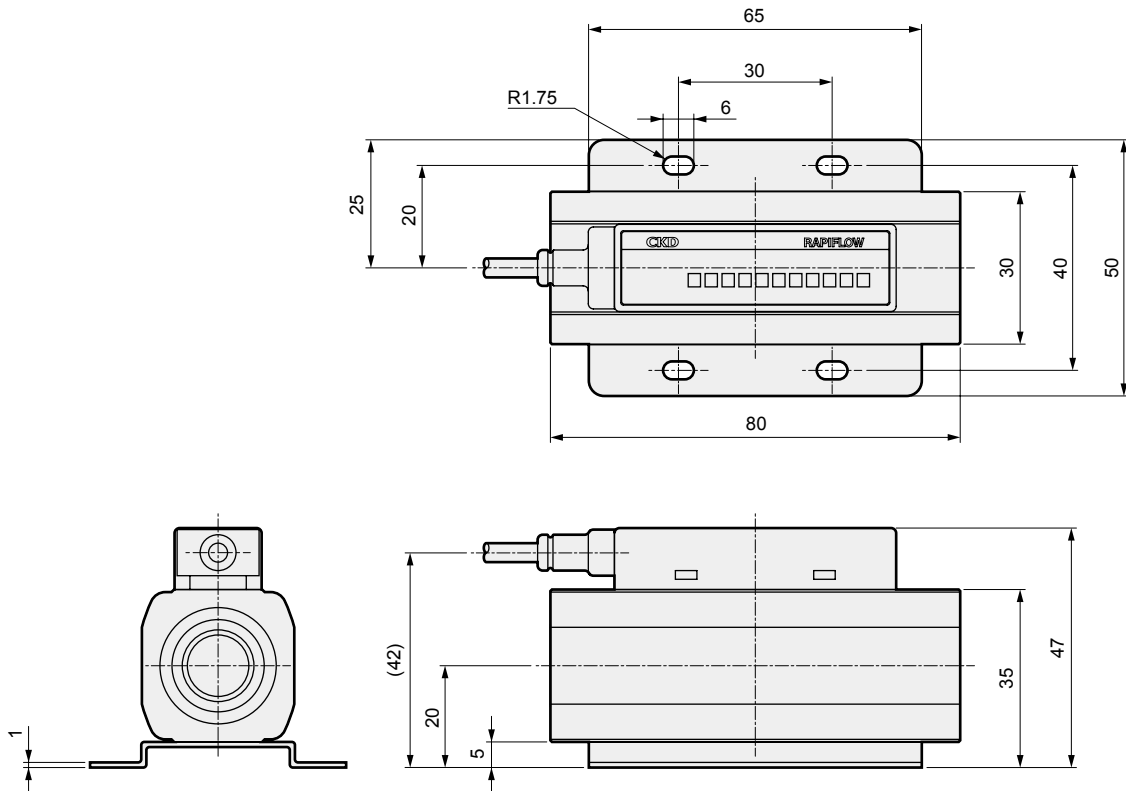
Display separated, port size: push-in $\phi 8$, $\phi 10$, Rc1/4

● FSM2-A -H08/H10/S08 B (full scale flow rate: 50, 100, 200 l/min)



Display separated, port size: Rc1/2

● FSM2-A -A15 B (full scale flow rate: 500, 1000 l/min)

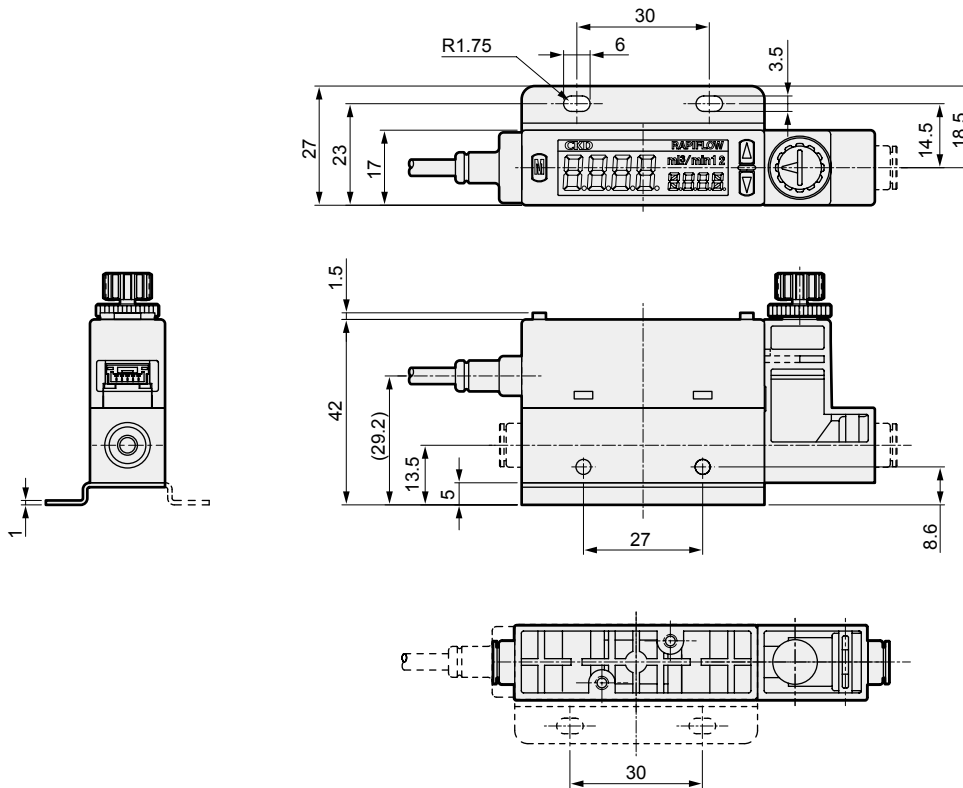


Dimensions with options (B: With bracket)



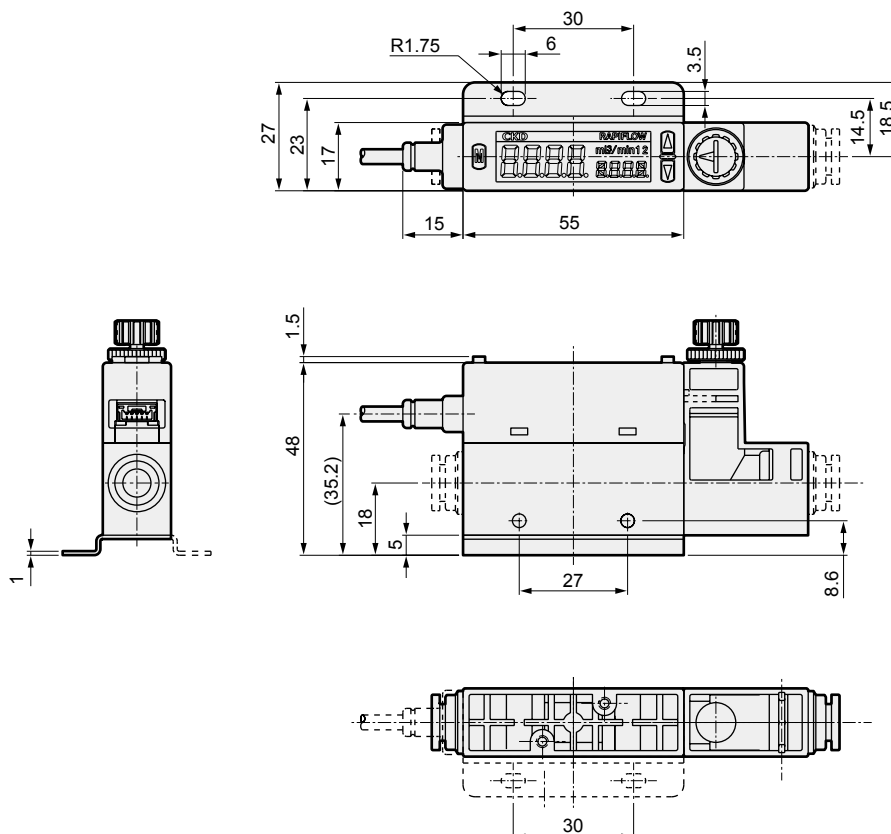
Needle valve integrated, port size: push-in $\phi 4$, $\phi 6$, Rc1/8

- FSM2-N/P □ -H04/H06/S06 □ BN (full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50 l/min)



Needle valve integrated, port size: push-in $\phi 8$, $\phi 10$, Rc1/4

- FSM2-N/P □ -H08/H10/S08 □ BN (full scale flow rate: 50, 100, 200 l/min)



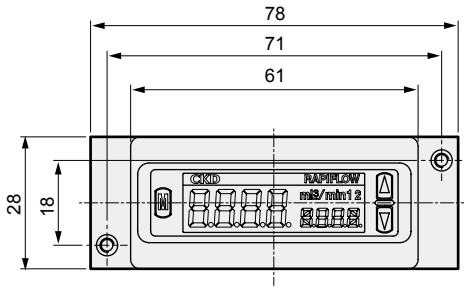
F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending



Dimensions with options (P: panel mounting kit with options)

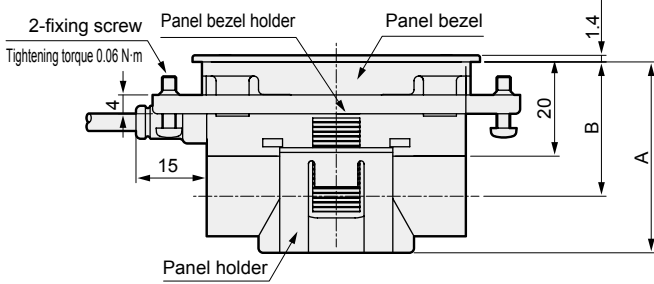
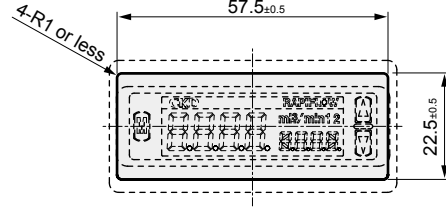
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacFR
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PresCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

● Display integrated

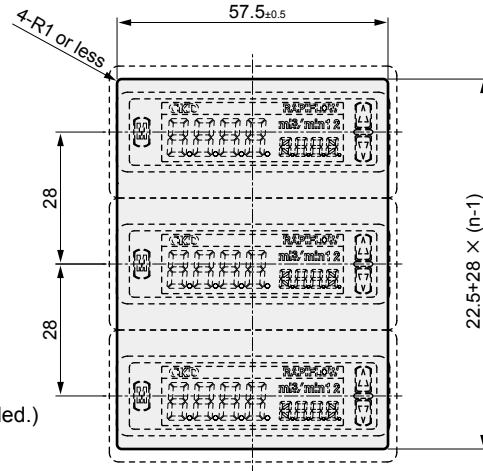


[Panel cut dimension]

In case of single installation



In case of continuous installation

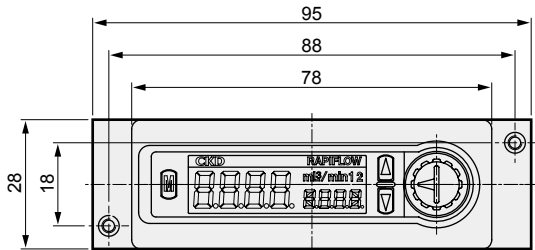


Panel thickness 6mm or less

Model No.	A	B
FSM2-N/P□-H04/H06/S06/SM5□	40.5	28.5
FSM2-N/P□-H08/H10/S08□	46.5	30.0

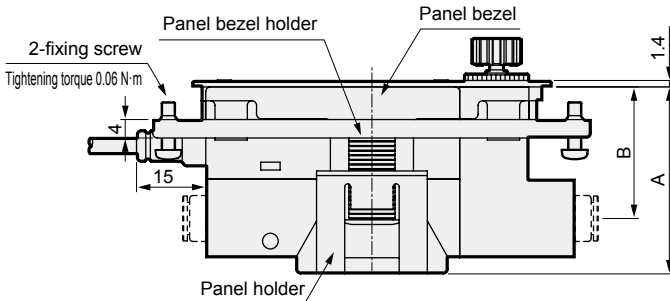
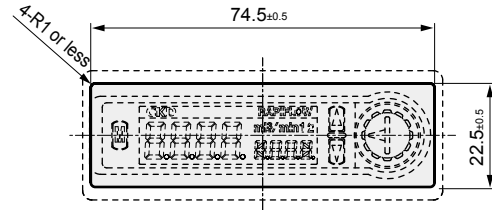
* Cannot be mounted on FSM-N/P□-A15□. Weight: 23g (Body is not included.)

● Needle valve integrated

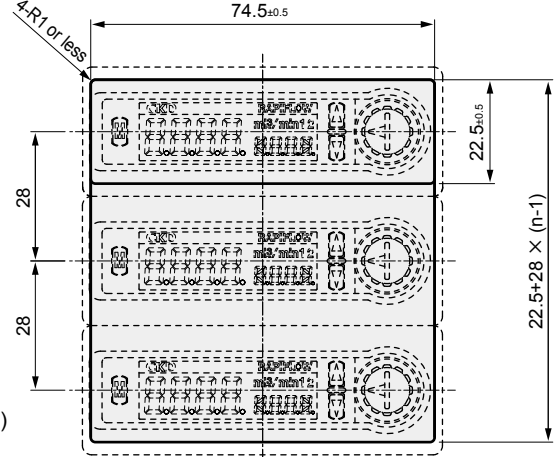


[Panel cut dimension]

In case of single installation



In case of continuous installation



Panel thickness 6mm or less

Model No.	A	B
FSM2-N/P□-H04/H06/S06□N	40.5	28.5
FSM2-N/P□-H08/H10/S08□N	46.5	30.0

Weight: 25g (Body is not included.)

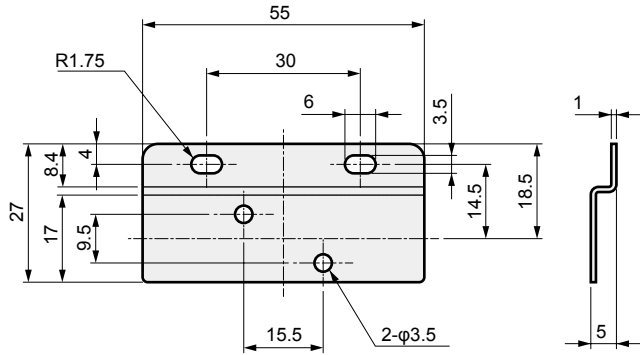
Optional dimensions



● Bracket

Model No.: FSM2-LB1

(Full scale flow rate: 0.5, 1, 2, 5, 10, 20, 50, 100, 200 l/min)

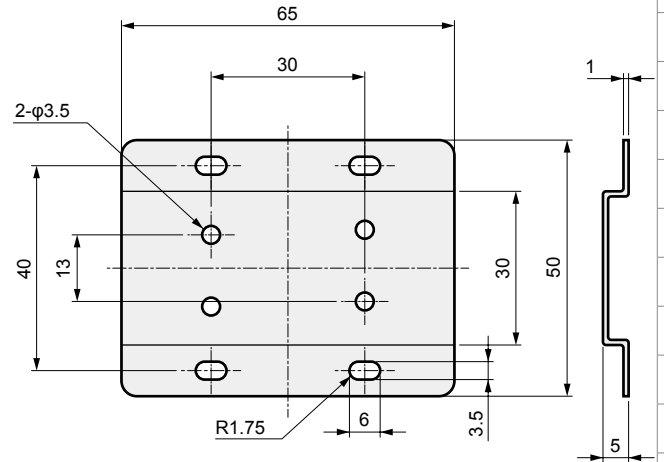


* 2 M3 fixing screws (length 6 mm) attached

Material: Steel
Weight: 13g

Model No.: FSM2-LB2

(Full scale flow rate: 500, 1000 l/min)



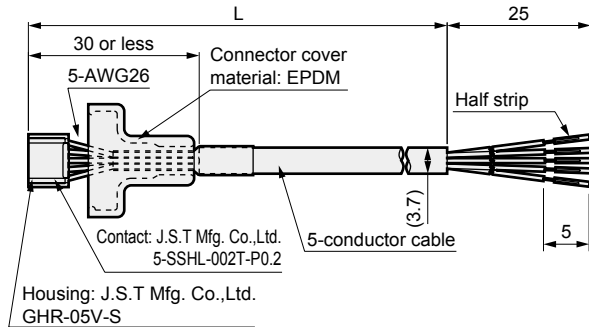
* 2 M3 fixing screws (length 6 mm) attached

Material: Steel
Weight: 28g

● Cable option

Model No.: FSM2-C51, C53

5-conductor cable (for display integrated FSM2-N/P □ - □, for separated display FSM2-D)

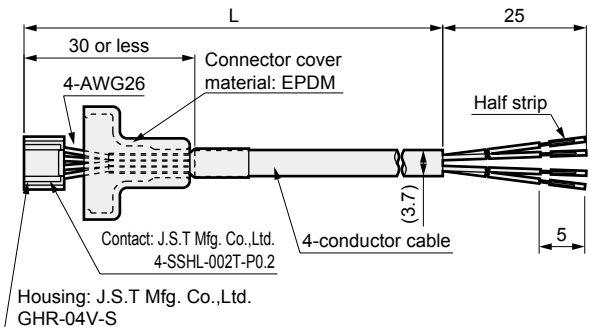


Terminal No.	Cable color
1	Brown
2	Black
3	White
4	Gray
5	Blue

Model No.	L dimensions	Weight g
FSM2-C51	1040±20	21
FSM2-C53	3040±20	57

Model No.: FSM2-C41, C43

4-conductor cable (for display separated FSM2-A □ - □)



Terminal No.	Cable color
1	Brown
2	Black
3	White
4	Blue

Model No.	L dimensions	Weight g
FSM2-C41	1040±20	19
FSM2-C43	3040±20	52

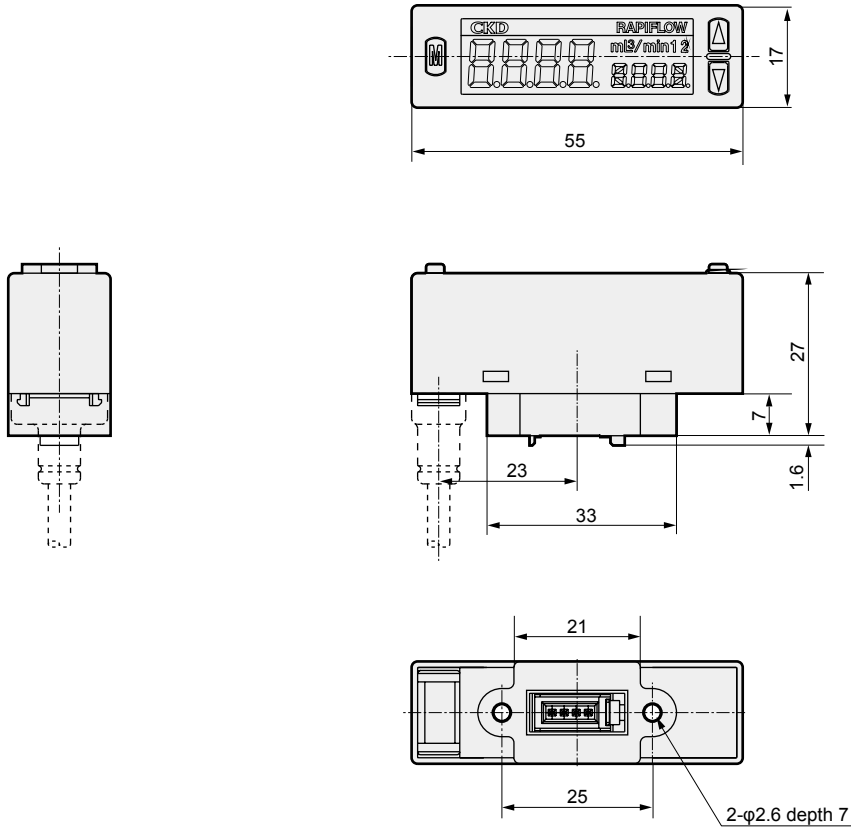
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneur
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending



Separated display dimensions

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/
PTFE FRL
- Outdrs FR
- F.R.L
(Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/
other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/
ElecPresSw
- ContactSW
- AirSens
- PresSW
Cool
- AirFloSens/
Contr
- WaterRtSens
- TotAirSys
(Total Air)
- TotAirSys
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
etc
- Ending

● FSM2-D-□



● Panel mounting kit with options dimensions

